

# ***Operations Performance Metrics Monthly Report***



## ***October 2021 Report***

### **Operations & Reliability Department New York Independent System Operator**

Prepared by NYISO Operations Analysis and Services, based on settlements initial invoice data collected on or before November 8, 2021.

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## October 2021 Operations Performance Highlights

- Peak load of 19,594 MW occurred on 10/15/2021 HB 16
- All-time summer capability period peak load of 33,956 MW occurred on 7/19/2013 HB 16
- 3.0 hours of Thunderstorm Alerts were declared
- 5.0 hours of NERC TLR level 3 curtailment
- Upgrades to the lines comprising HQ-CEDARS-NY interface were completed on 10/13/2021 which increases import capability by 80MW when all lines are in service.
- To reduce risks from COVID-19, the NYISO continues to take several actions to maintain critical business operations and protect the health and well-being of our employees and stakeholders.

The following table identifies the estimated production cost savings associated with the Broader Regional Market initiatives.

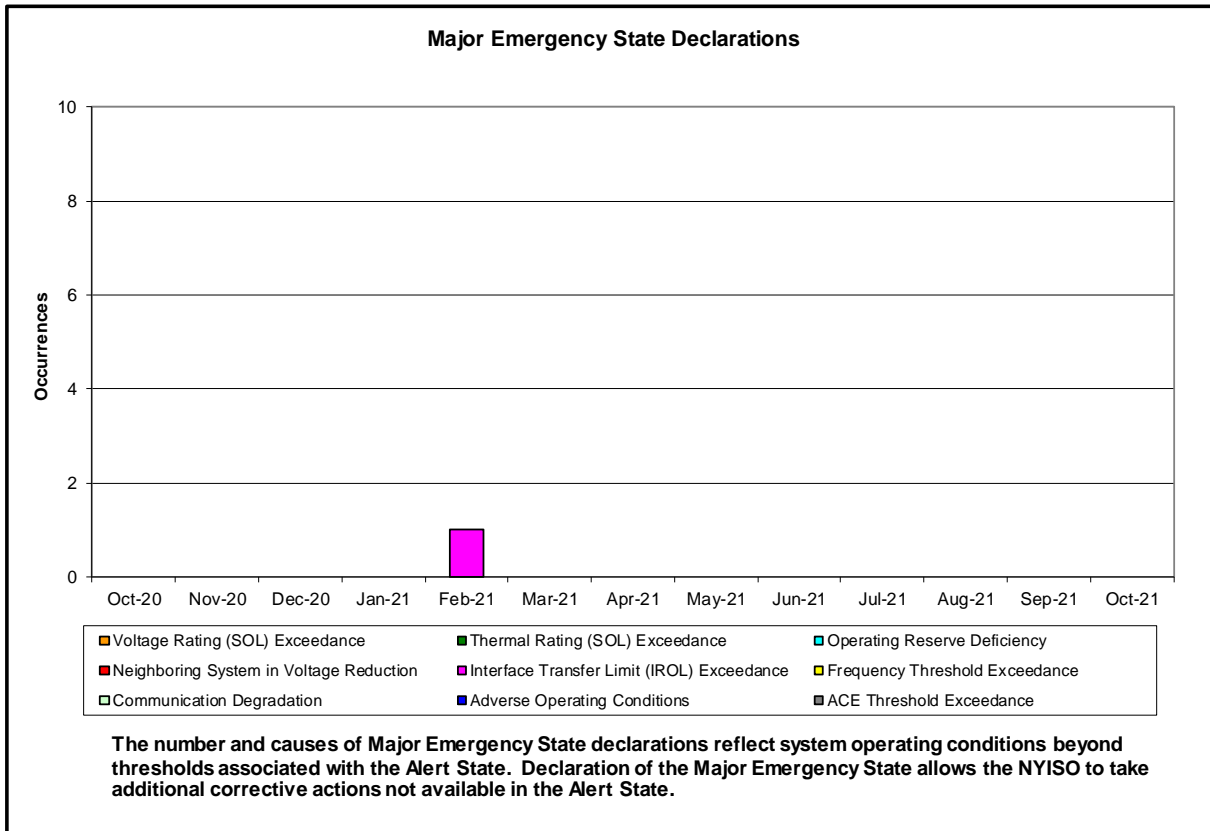
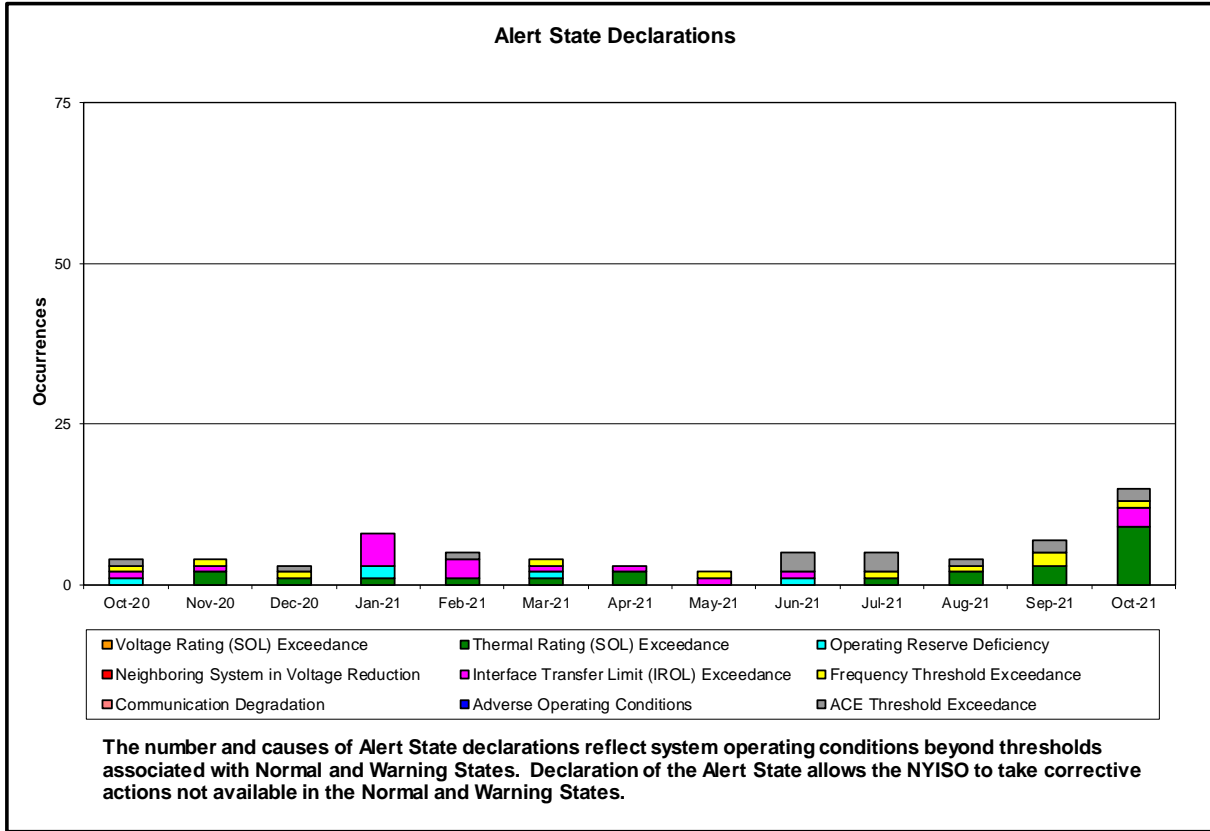
	<b>Current Month Value (\$M)</b>	<b>Year-to-Date Value (\$M)</b>
<b>NY Savings from PJM-NY Congestion Coordination</b>	\$1.53	\$13.94
<b>NY Savings from PJM-NY Coordinated Transaction Scheduling</b>	(\$0.67)	\$0.56
<b>NY Savings from NE-NY Coordinated Transaction Scheduling</b>	\$0.84	(\$0.20)
<b>Total NY Savings</b>	<b>\$1.70</b>	<b>\$14.30</b>
<b>Regional Savings from PJM-NY Coordinated Transaction Scheduling</b>	\$0.53	\$5.00
<b>Regional Savings from NE-NY Coordinated Transaction Scheduling</b>	\$0.09	\$0.30
<b>Total Regional Savings</b>	<b>\$0.62</b>	<b>\$5.30</b>

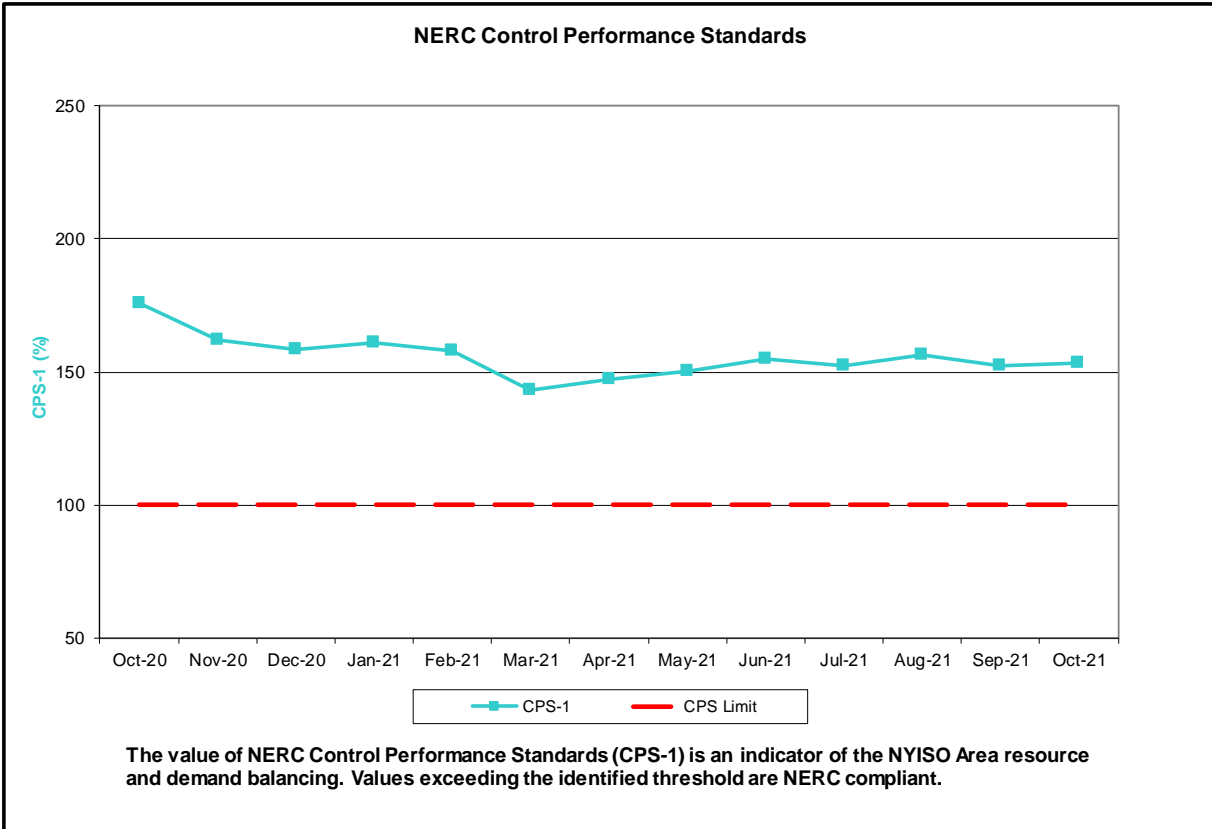
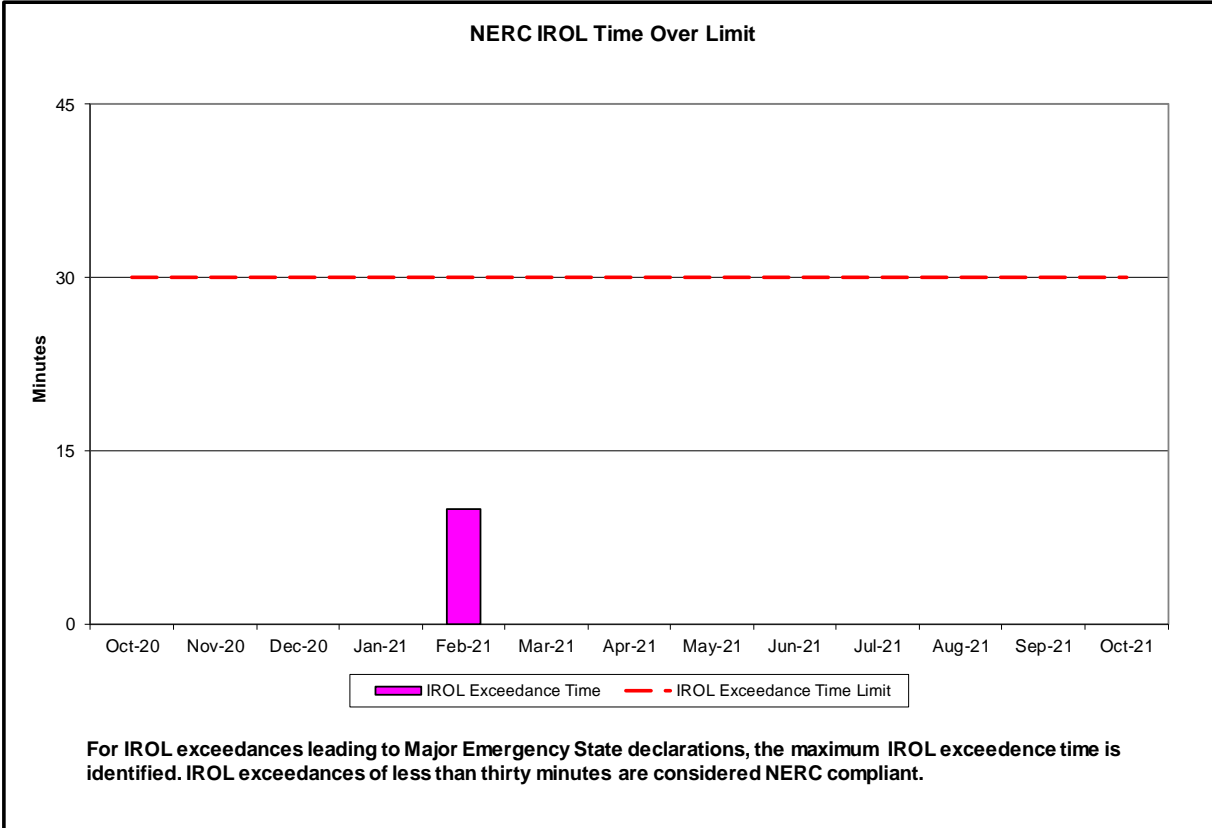
- Statewide uplift cost monthly average was (\$0.81)/MWh.
- The following table identifies the Monthly ICAP spot market prices and the price delta.

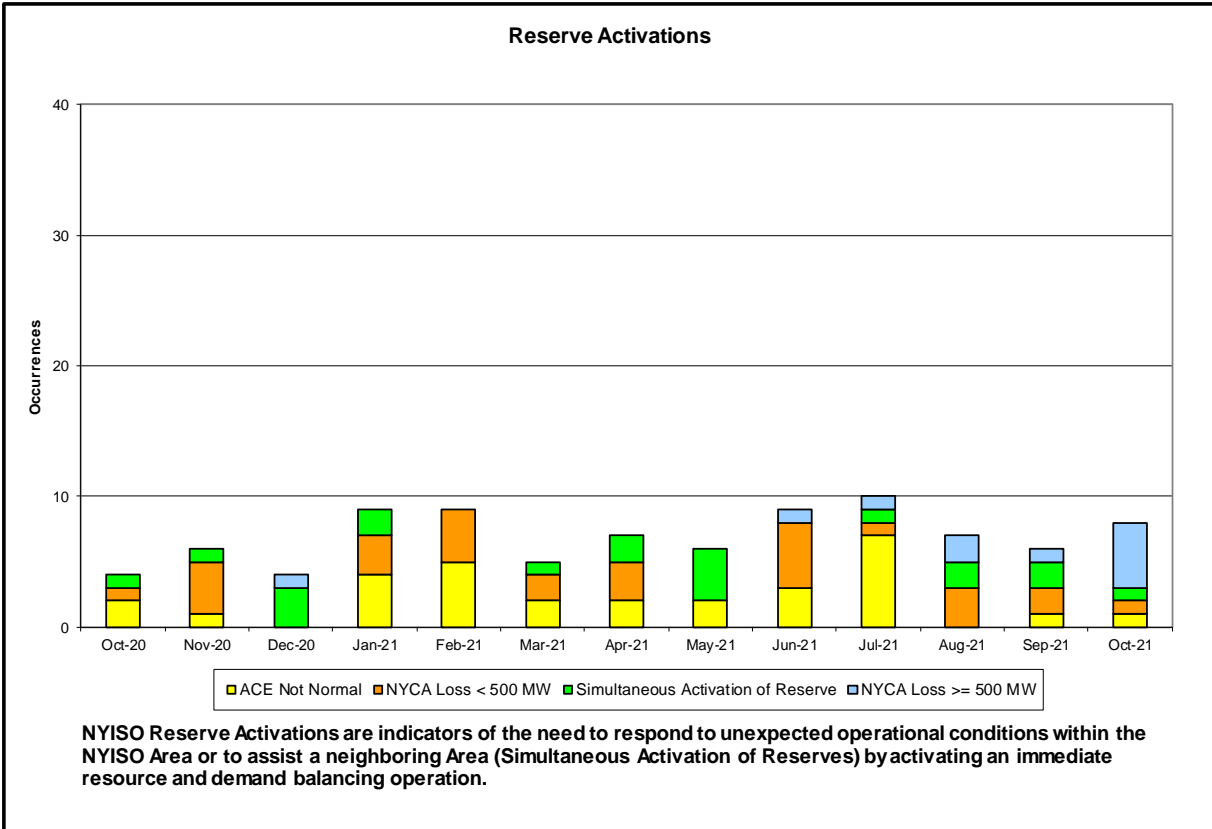
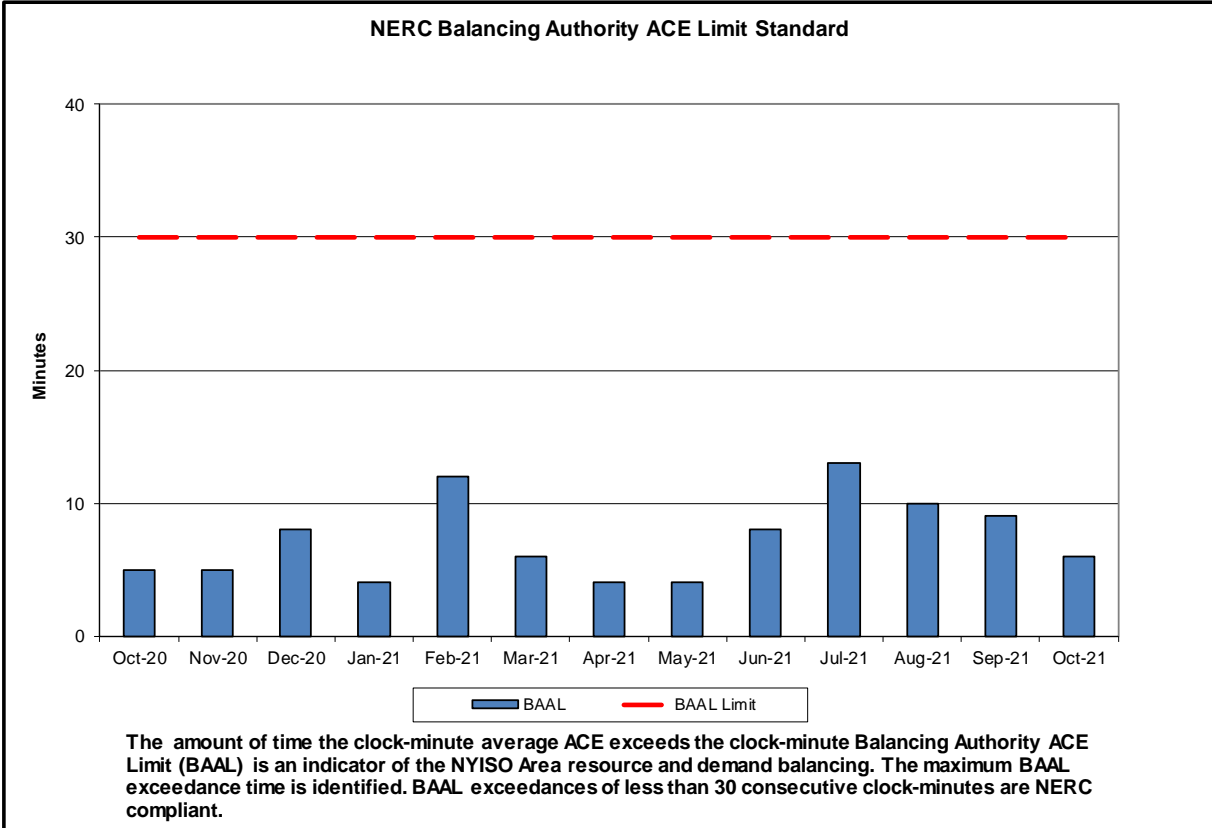
Spot Auction Price Results	NYCA	Lower Hudson Valley Zones	New York City Zone	Long Island Zone
November 2021 Spot Price	\$1.65	\$1.65	\$1.65	\$1.65
April 2021 Spot Price	\$0.89	\$0.89	\$8.44	\$0.89
Delta	\$0.76	\$0.76	(\$6.79)	\$0.76

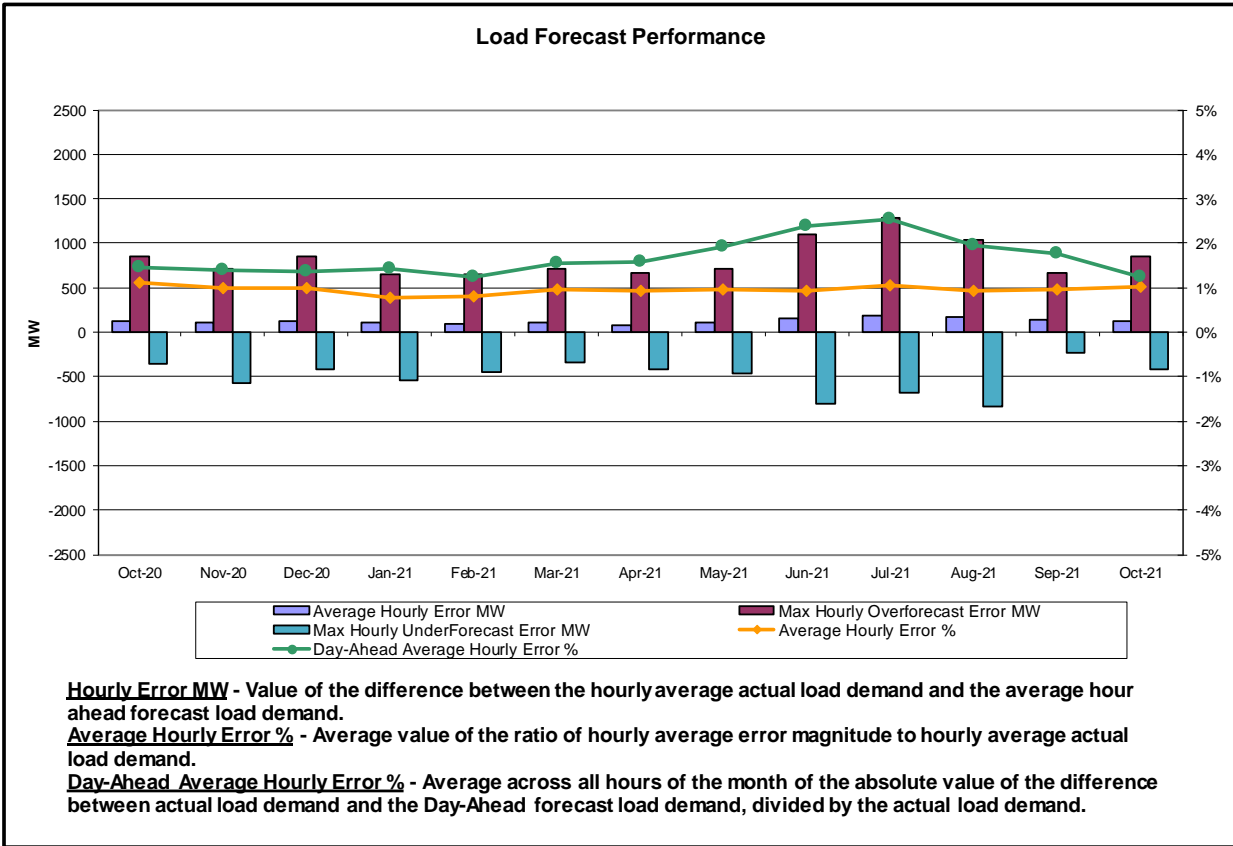
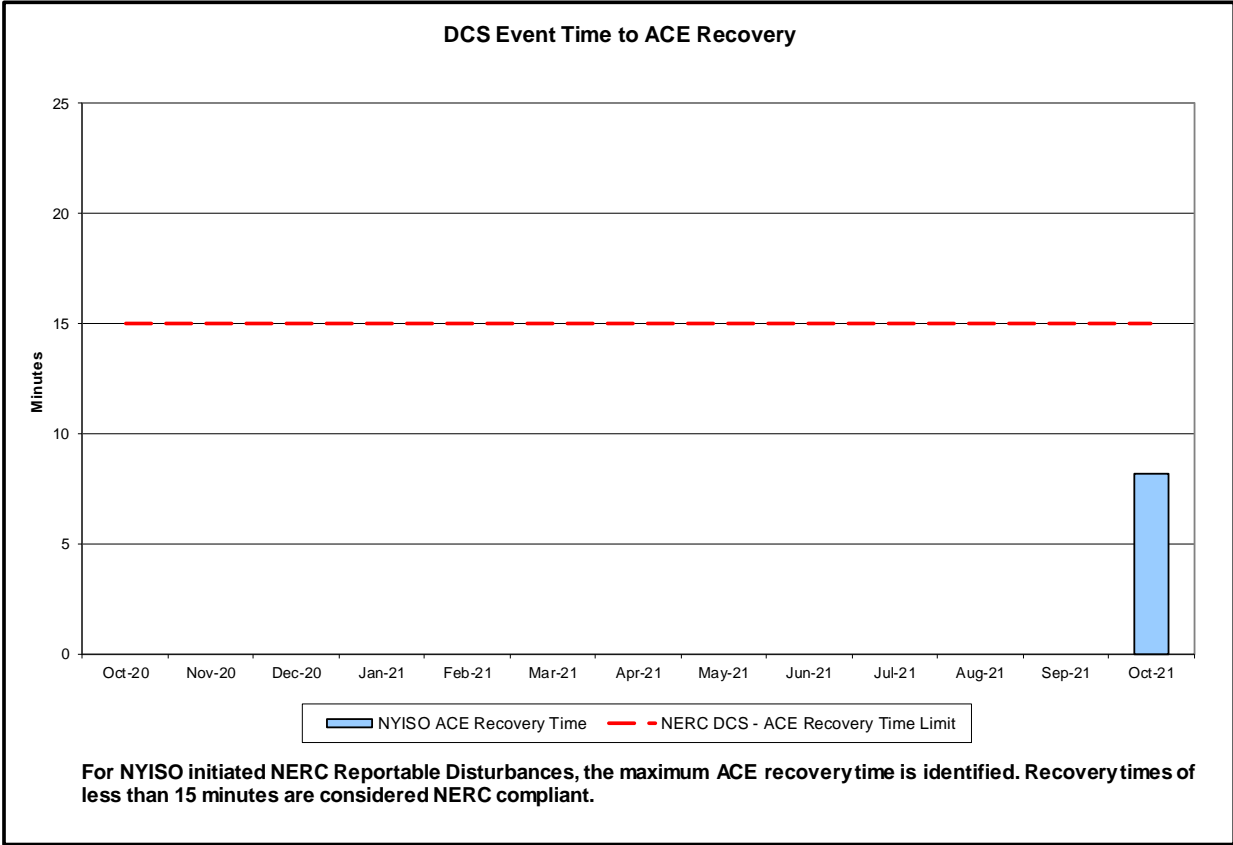
- Price changes from April 2021 to November 2021 are driven by changes in supply as well as Capability Year inputs such as demand curve parameters, Locational Capacity Requirements, the Installed Reserve Margin and the load forecast.

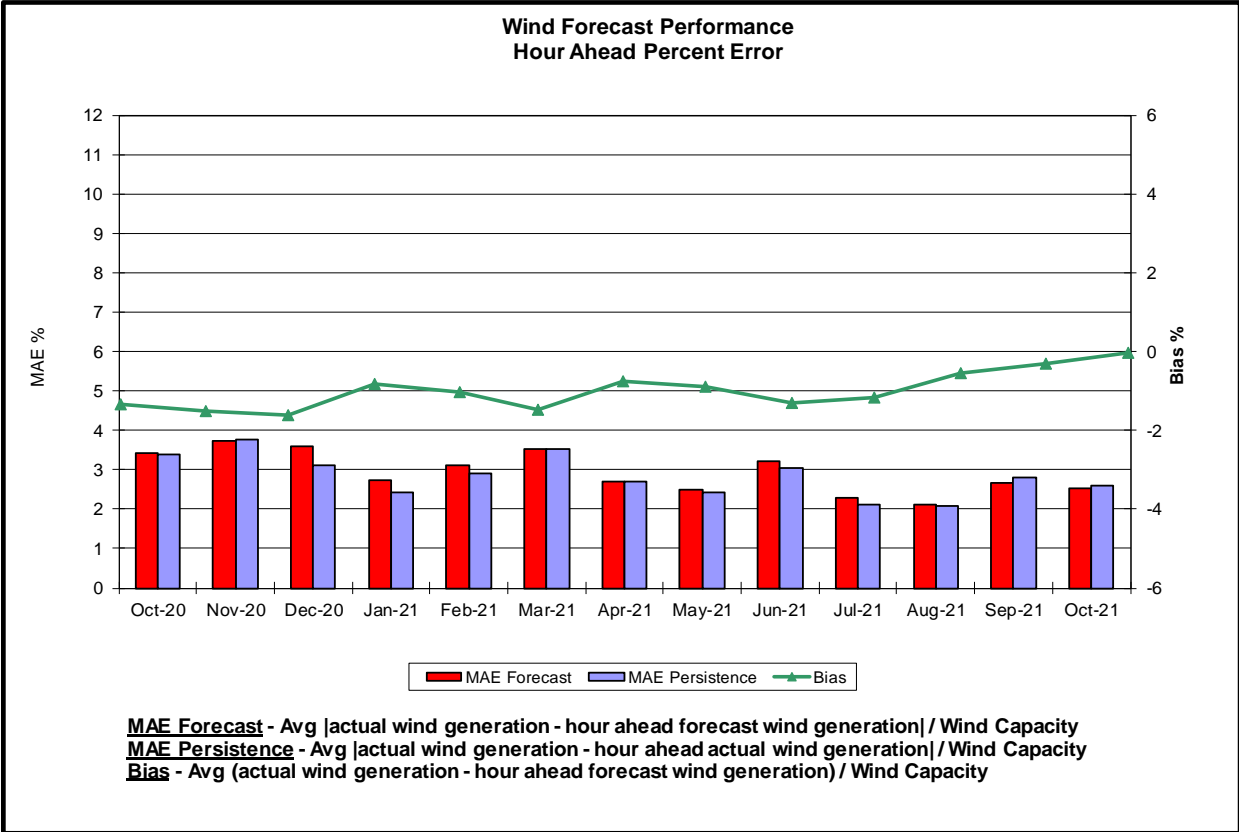
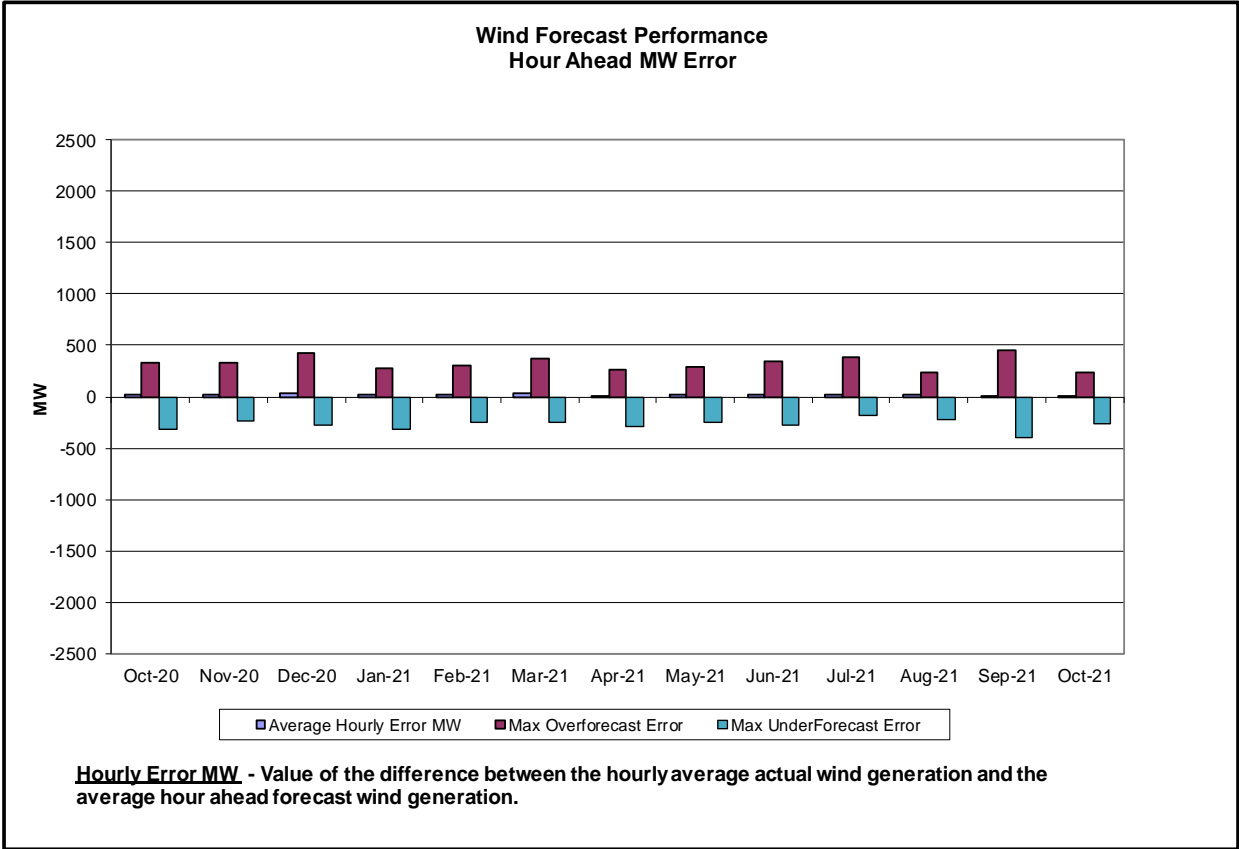
## Reliability Performance Metrics



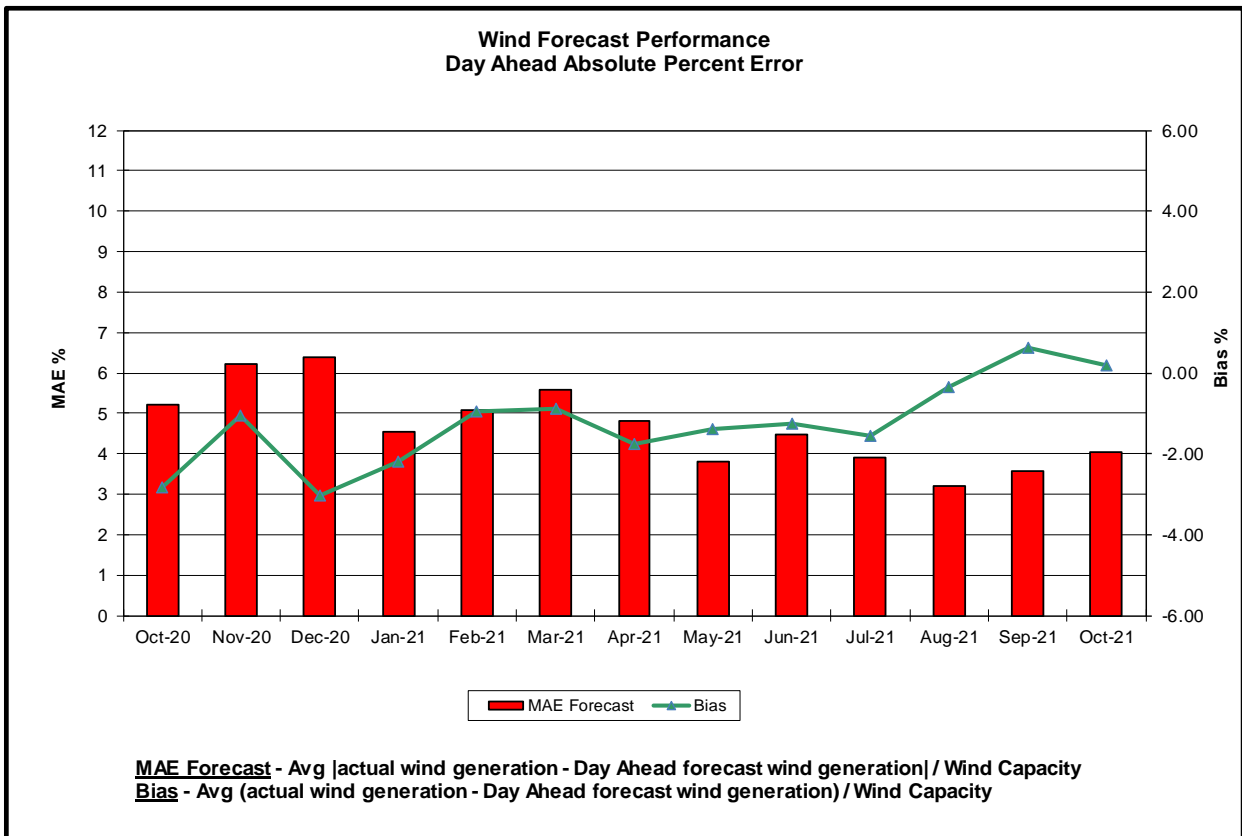
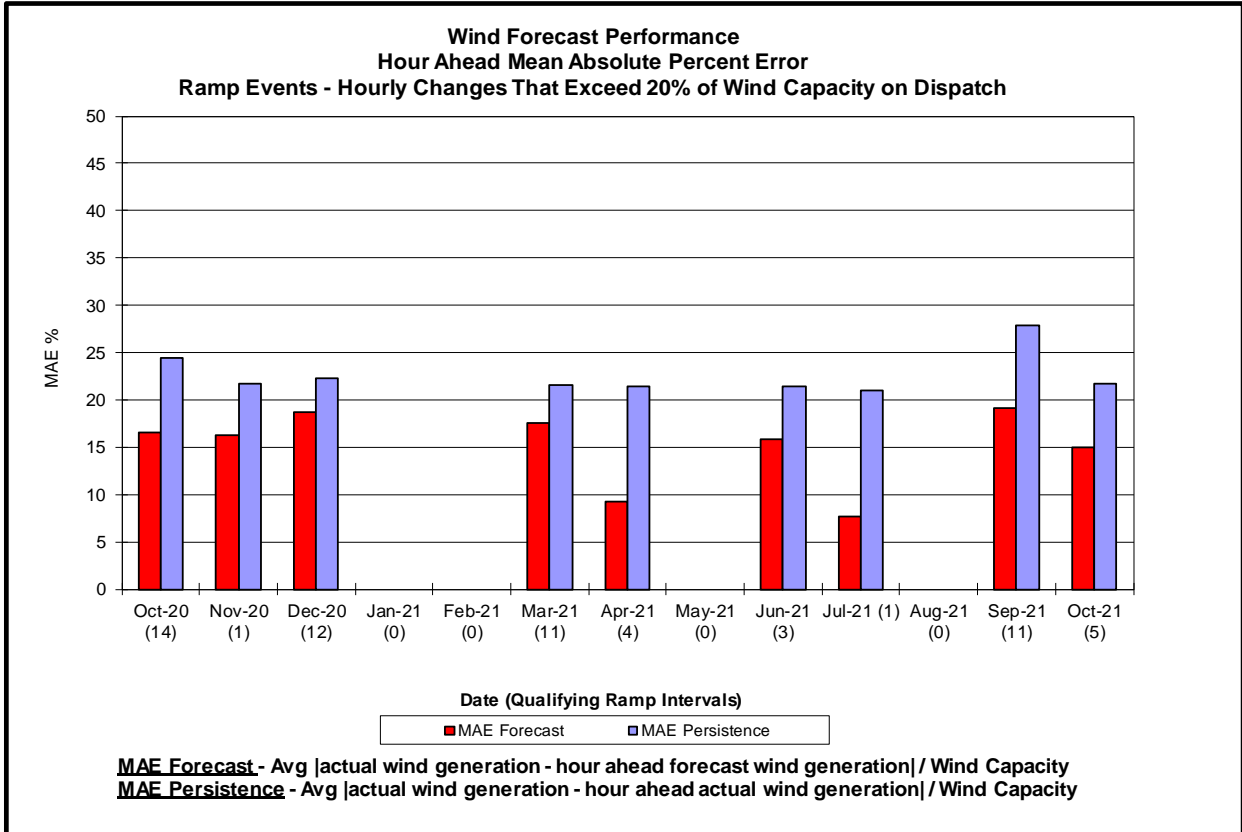


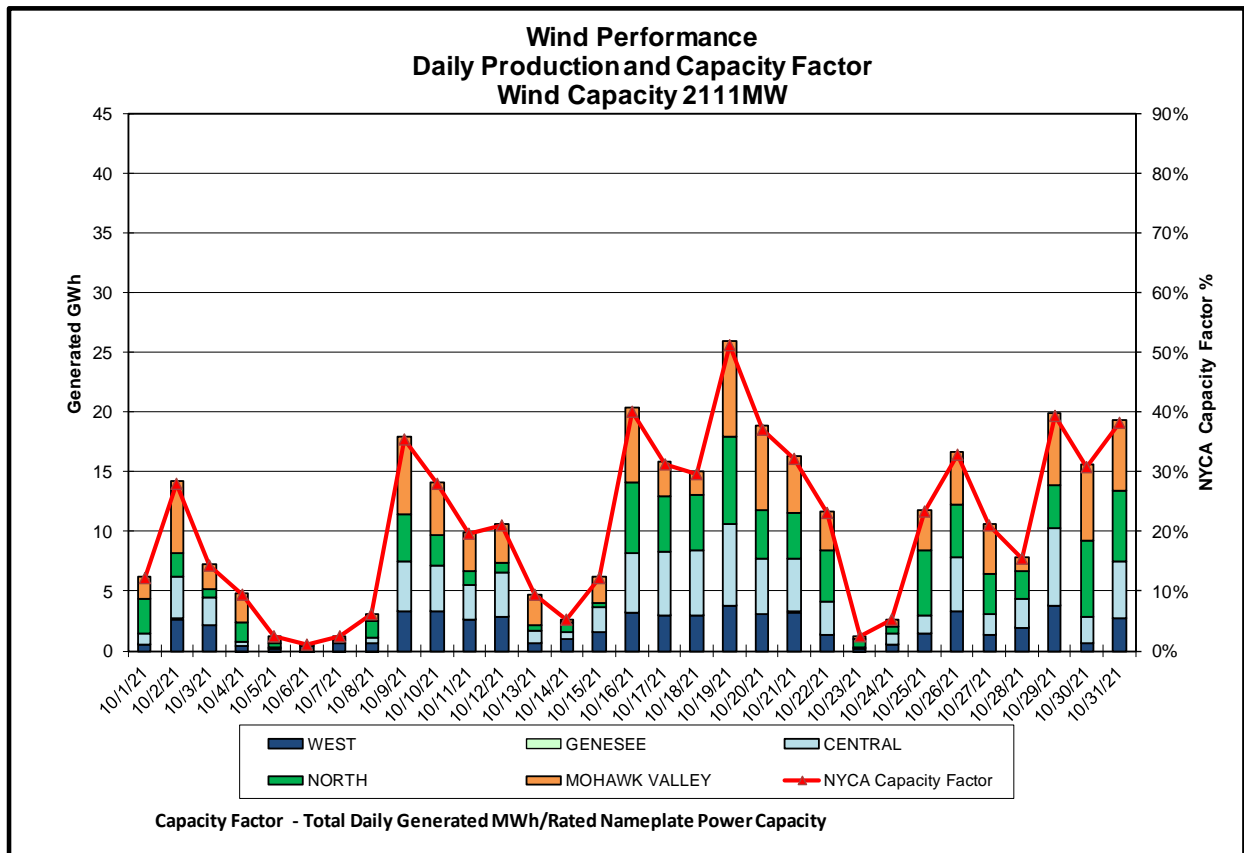
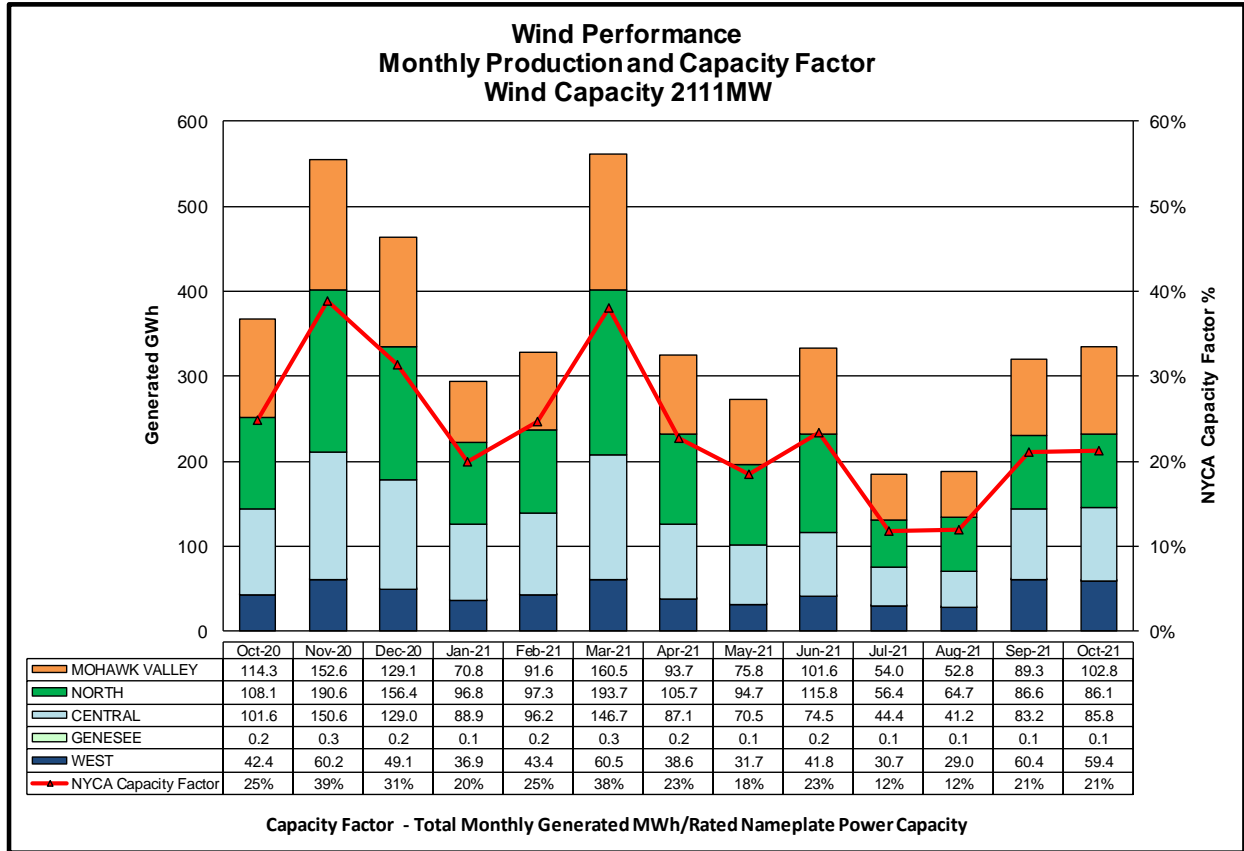


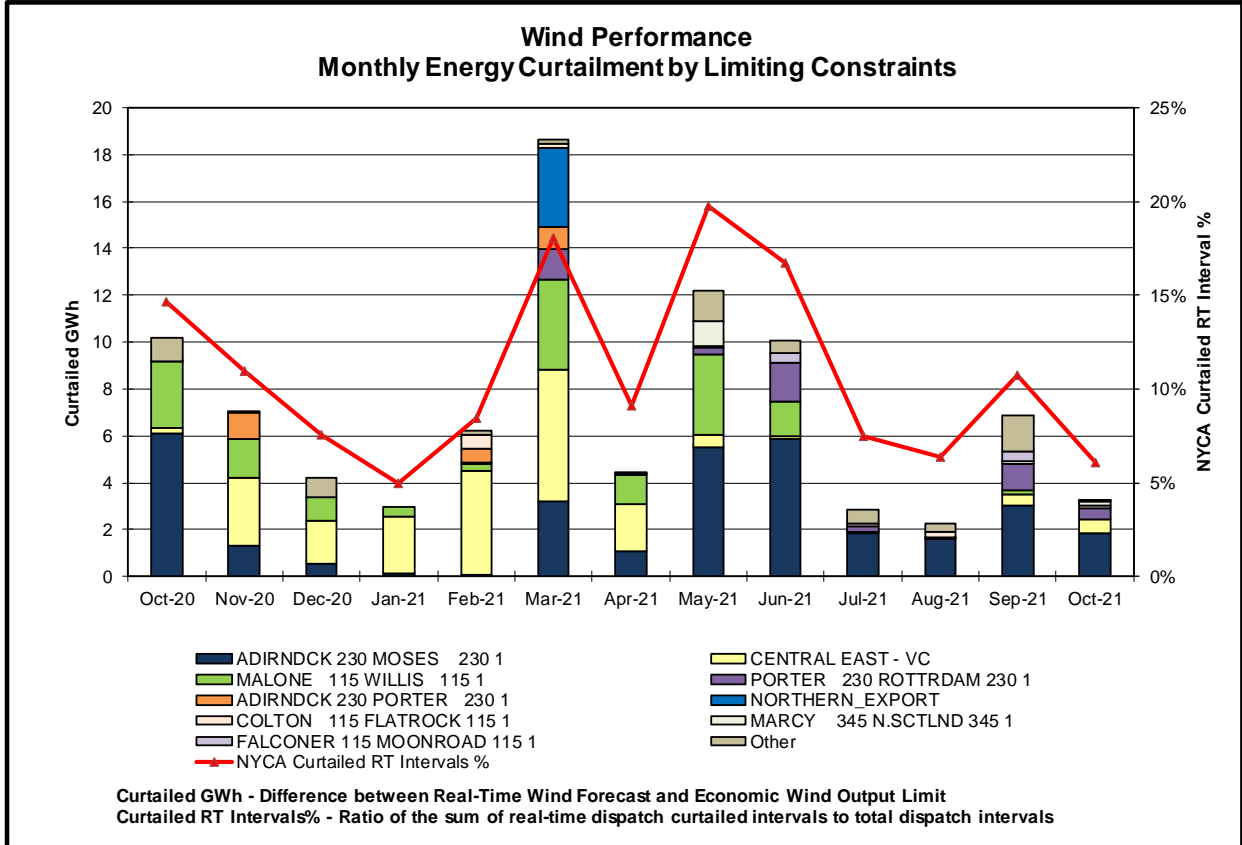
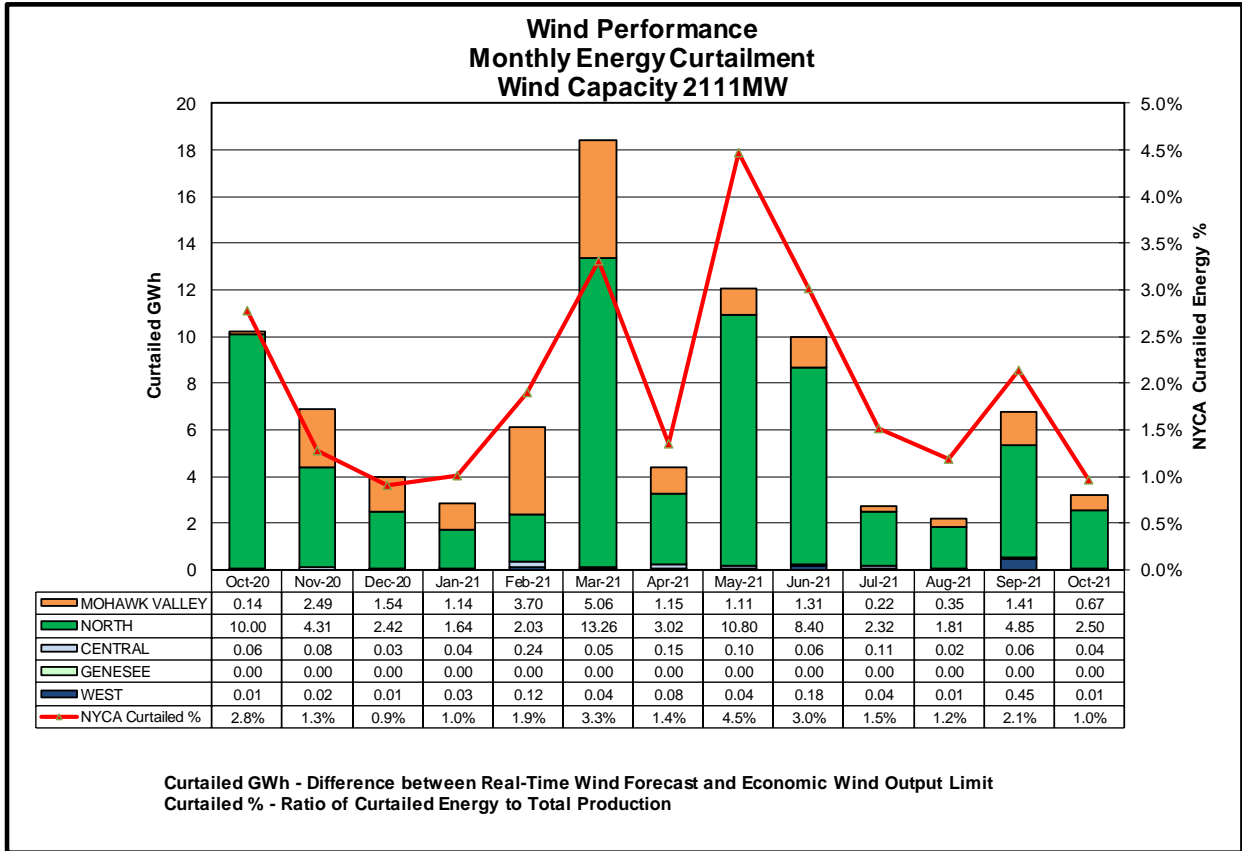


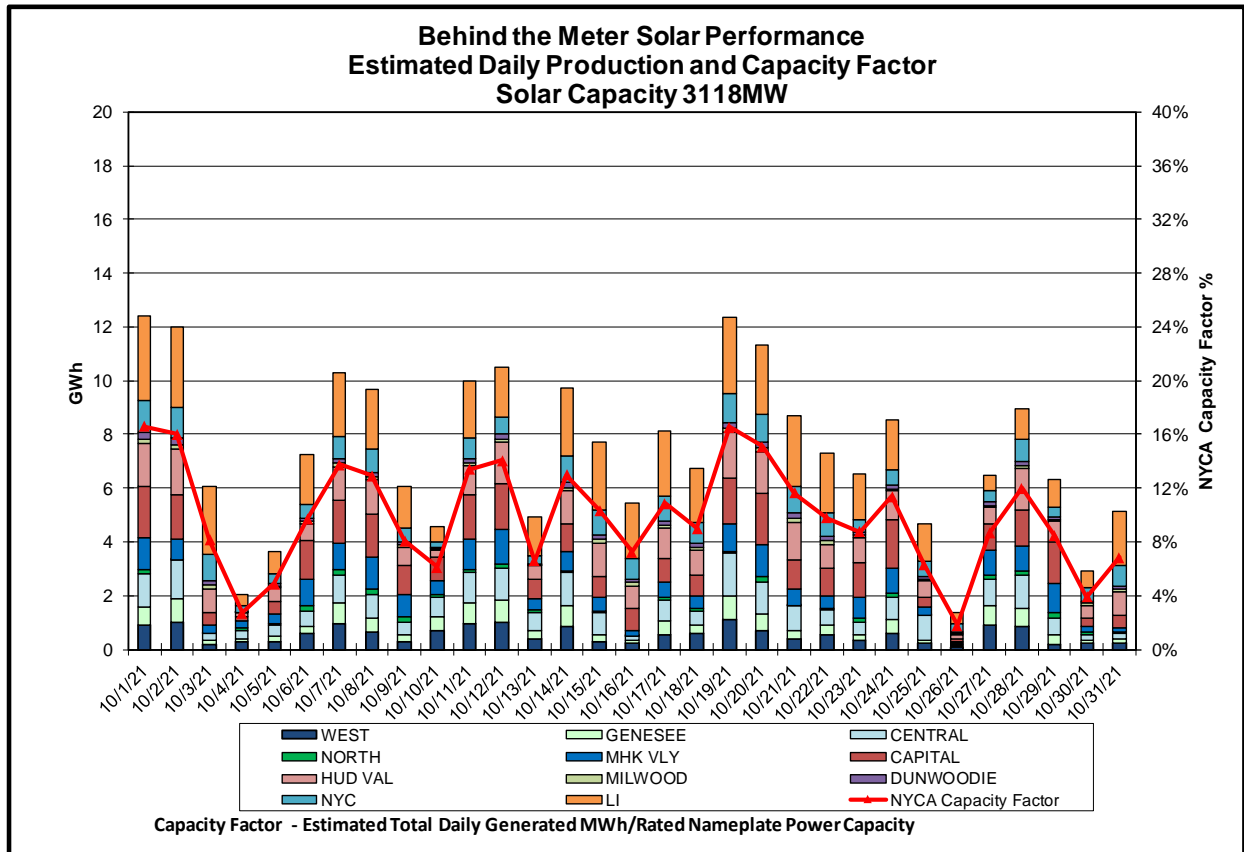
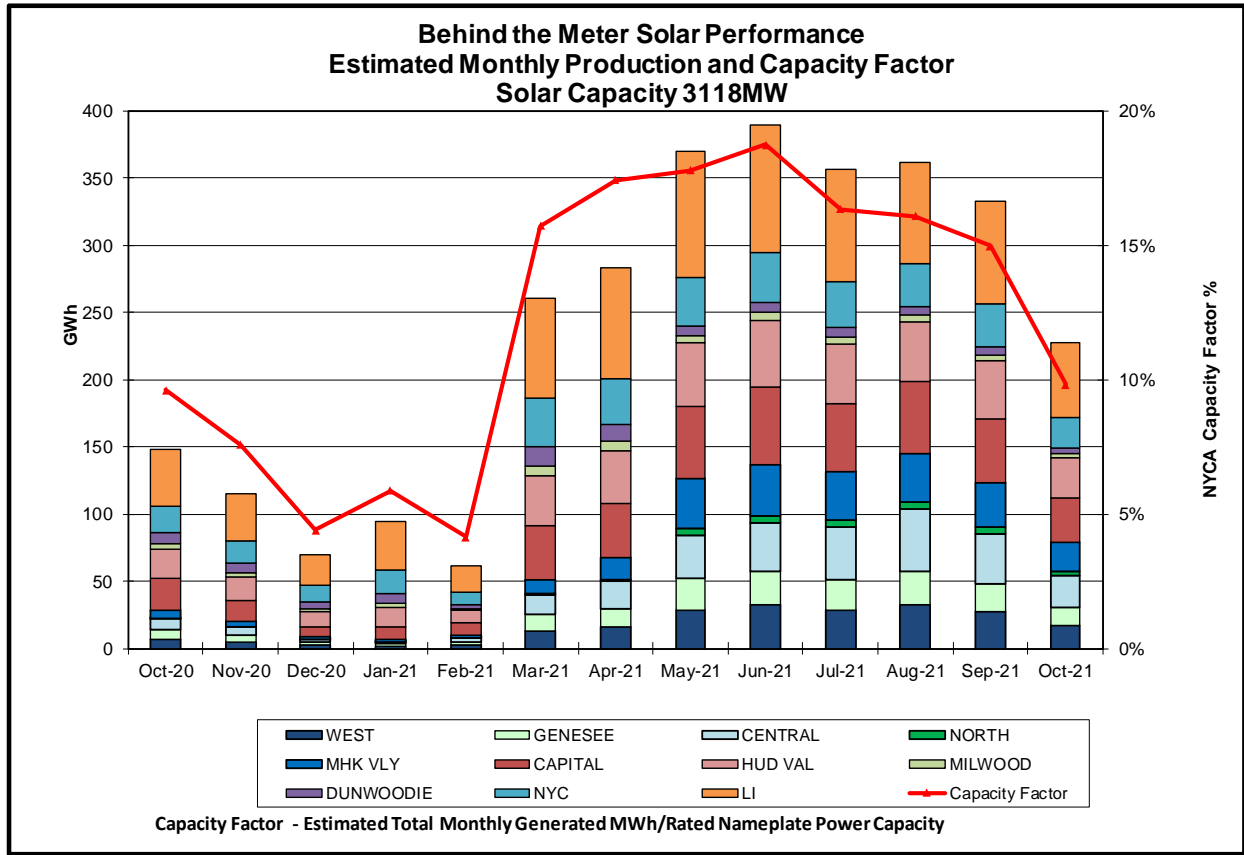


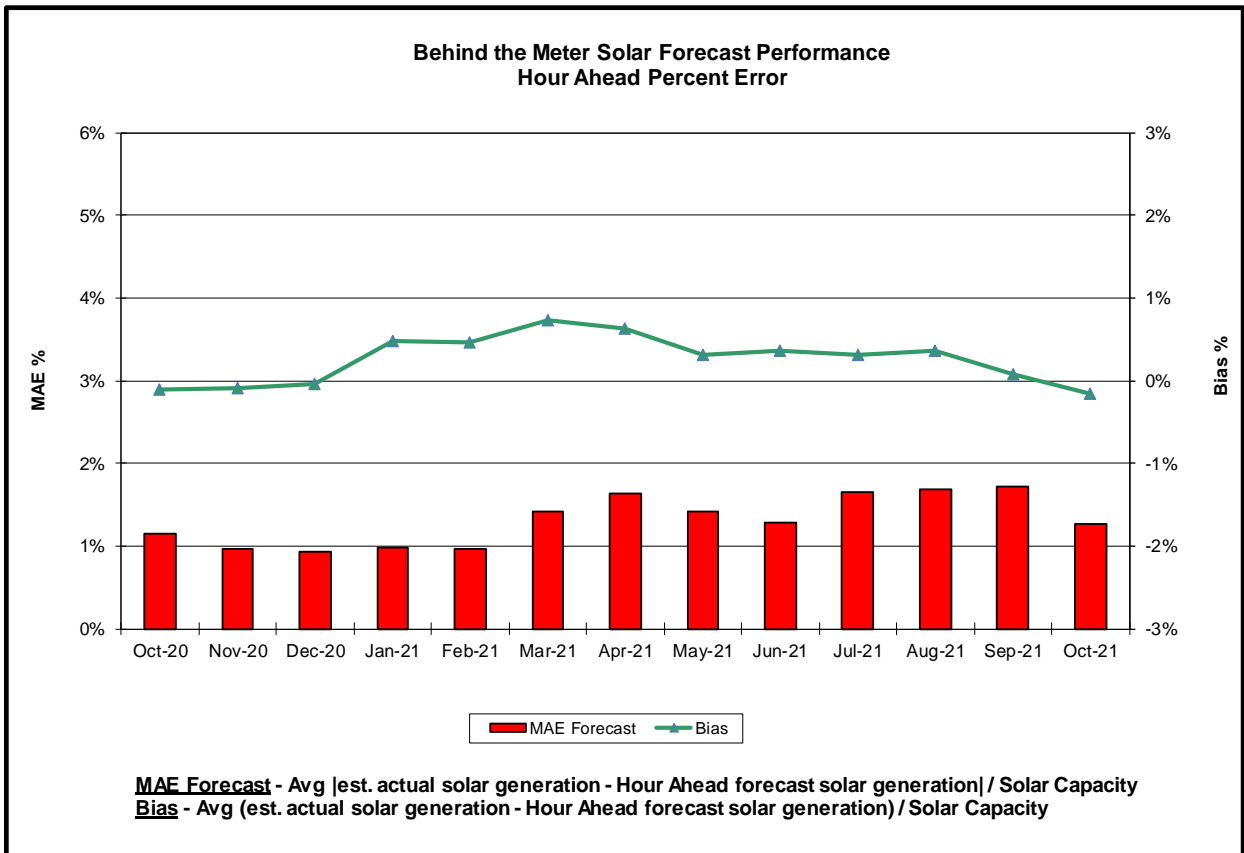
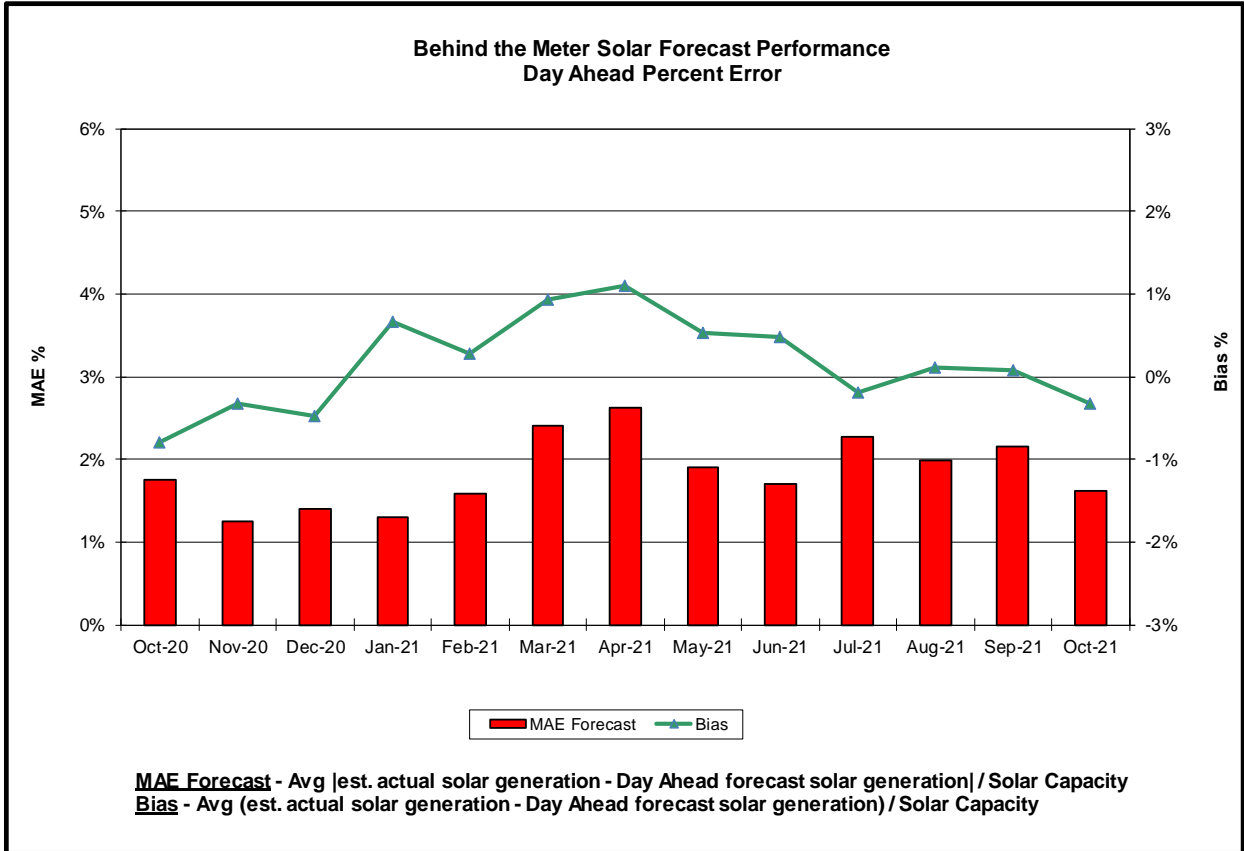


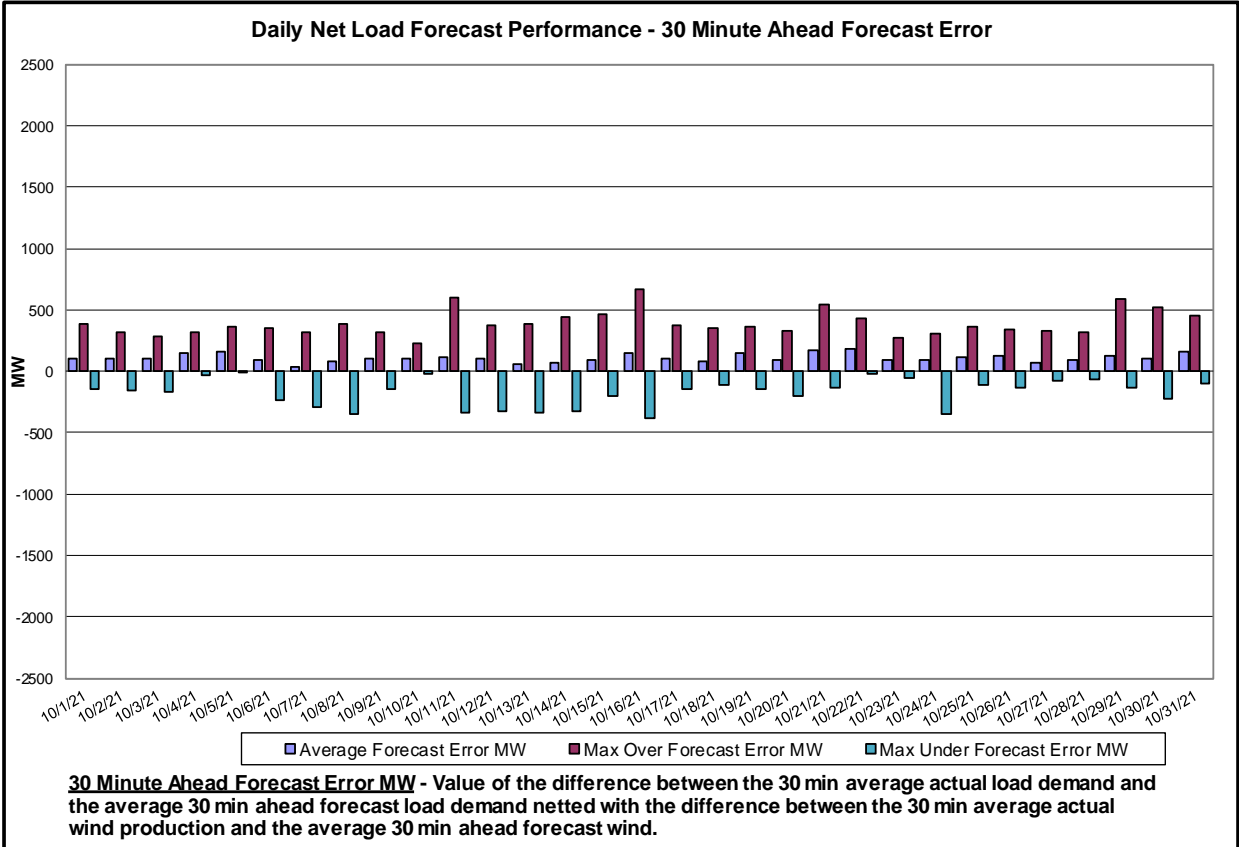
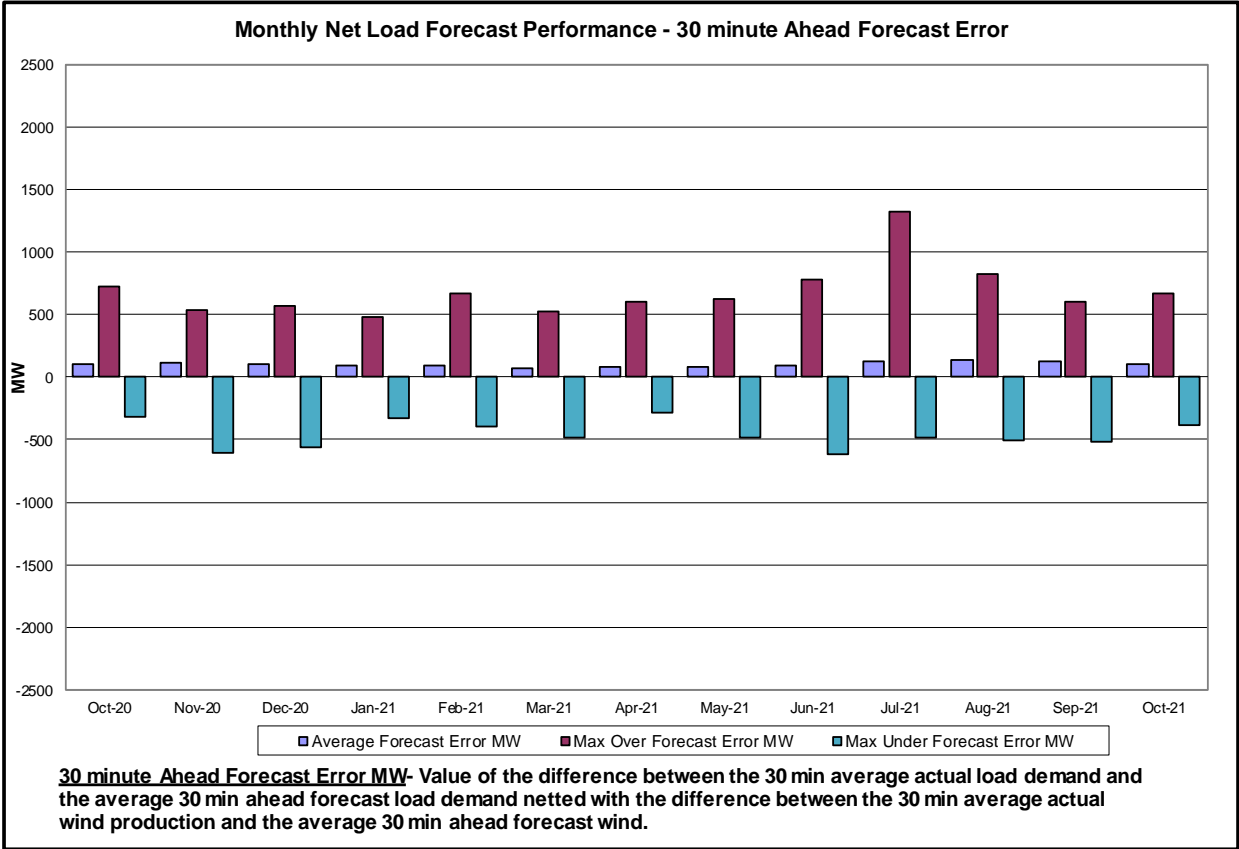


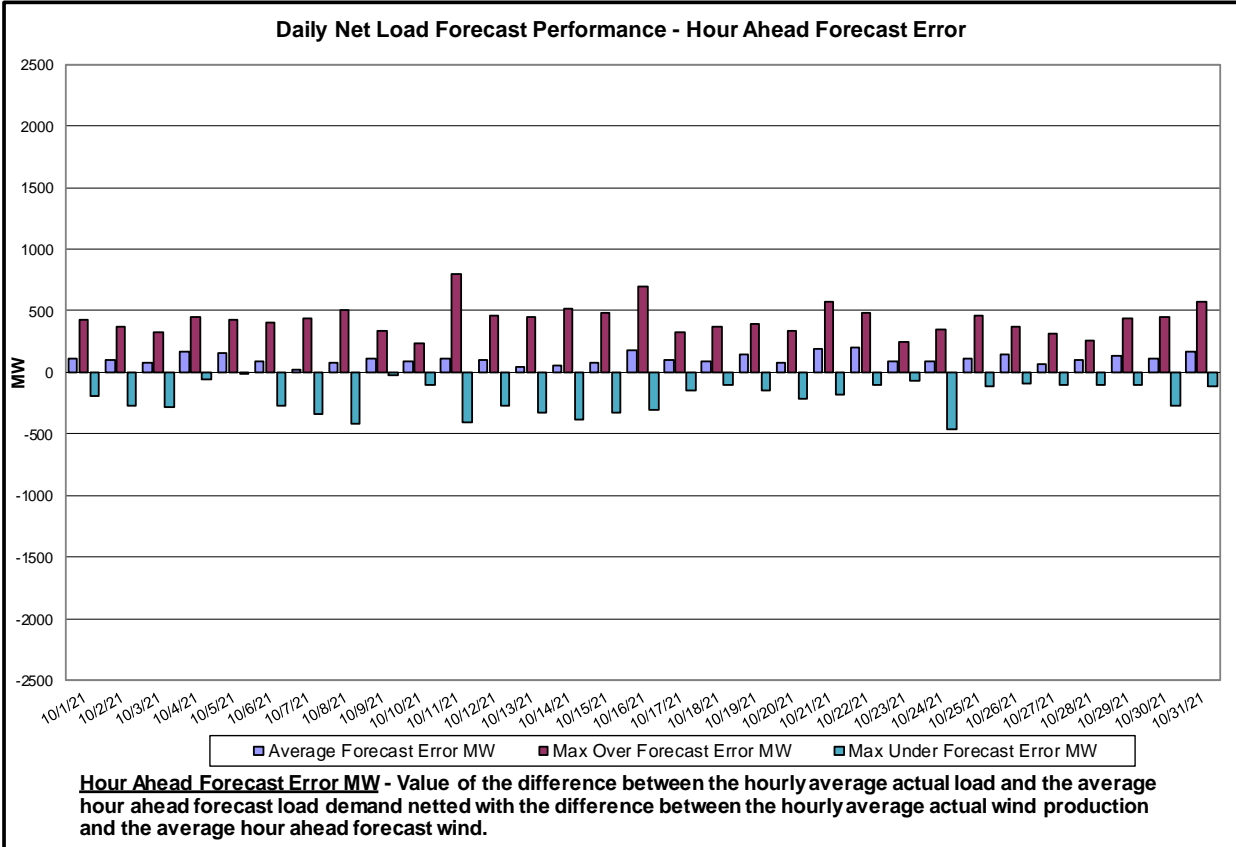
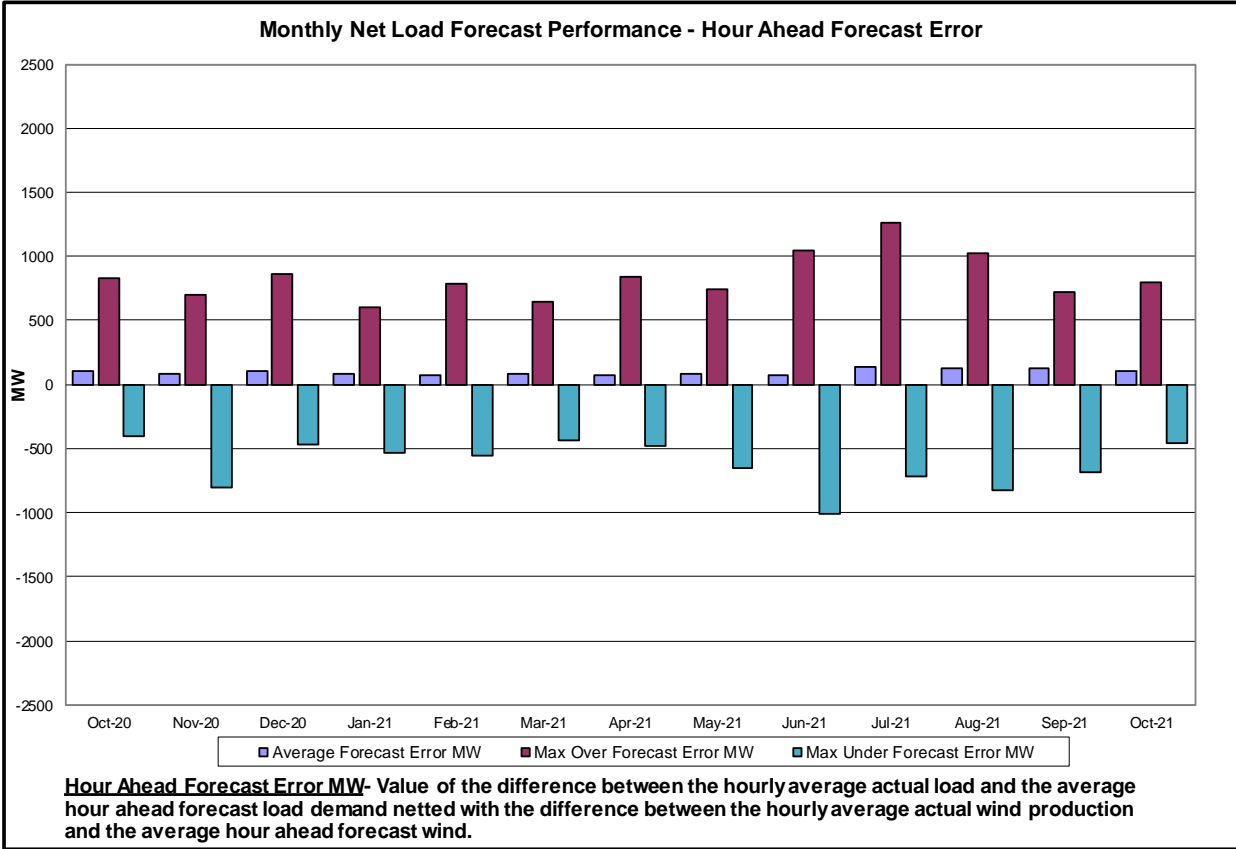


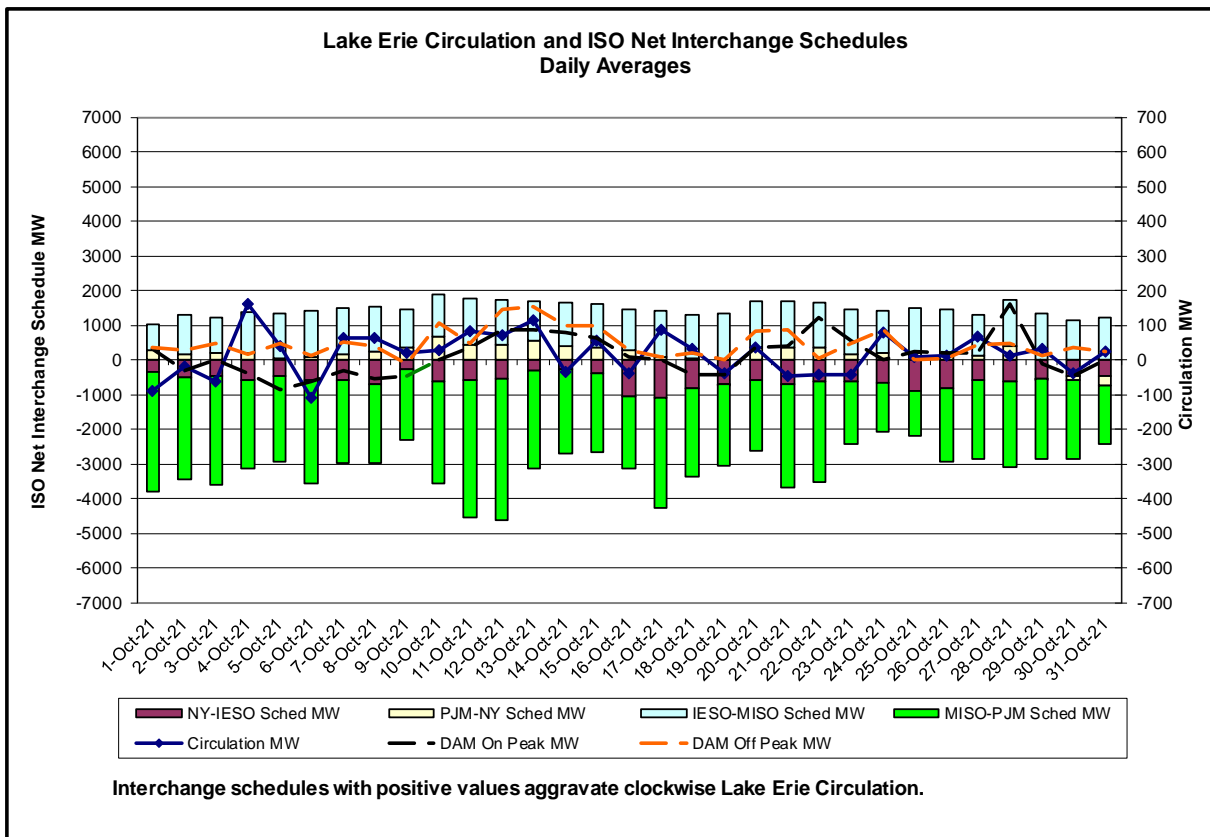
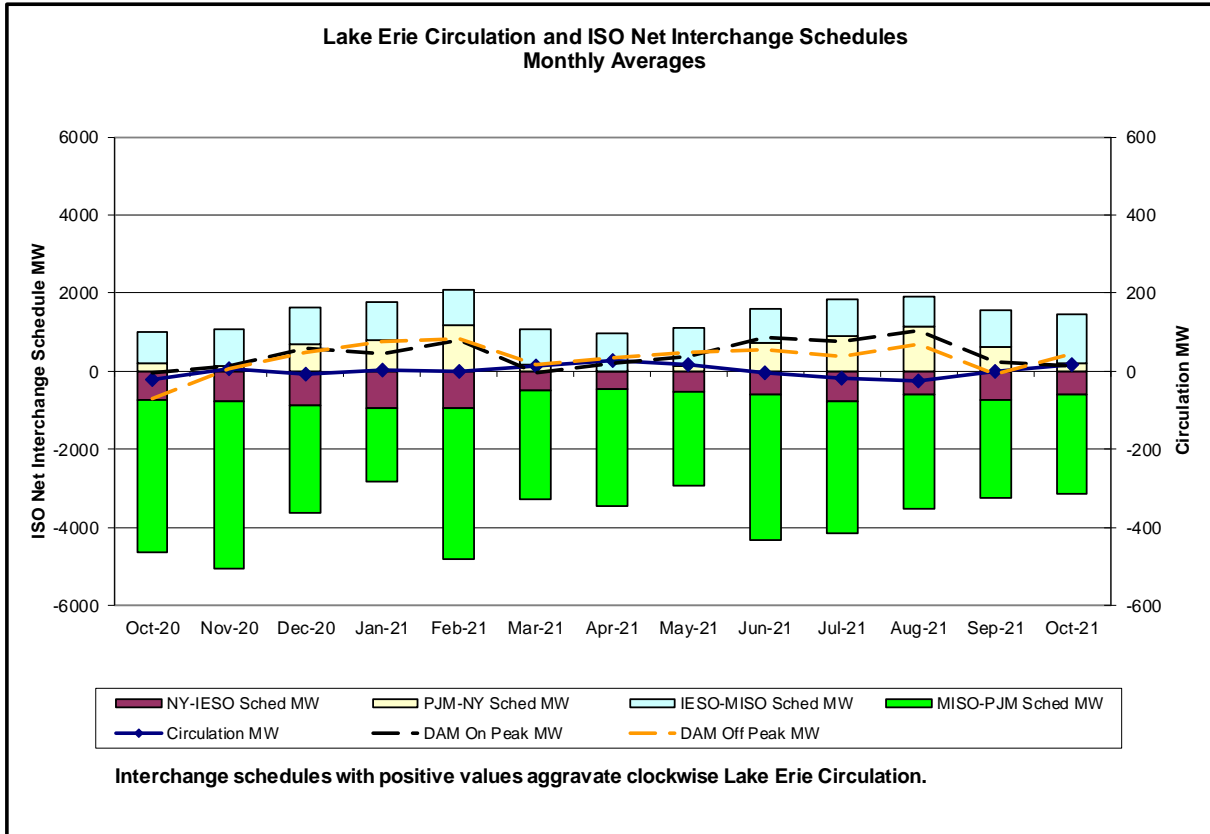






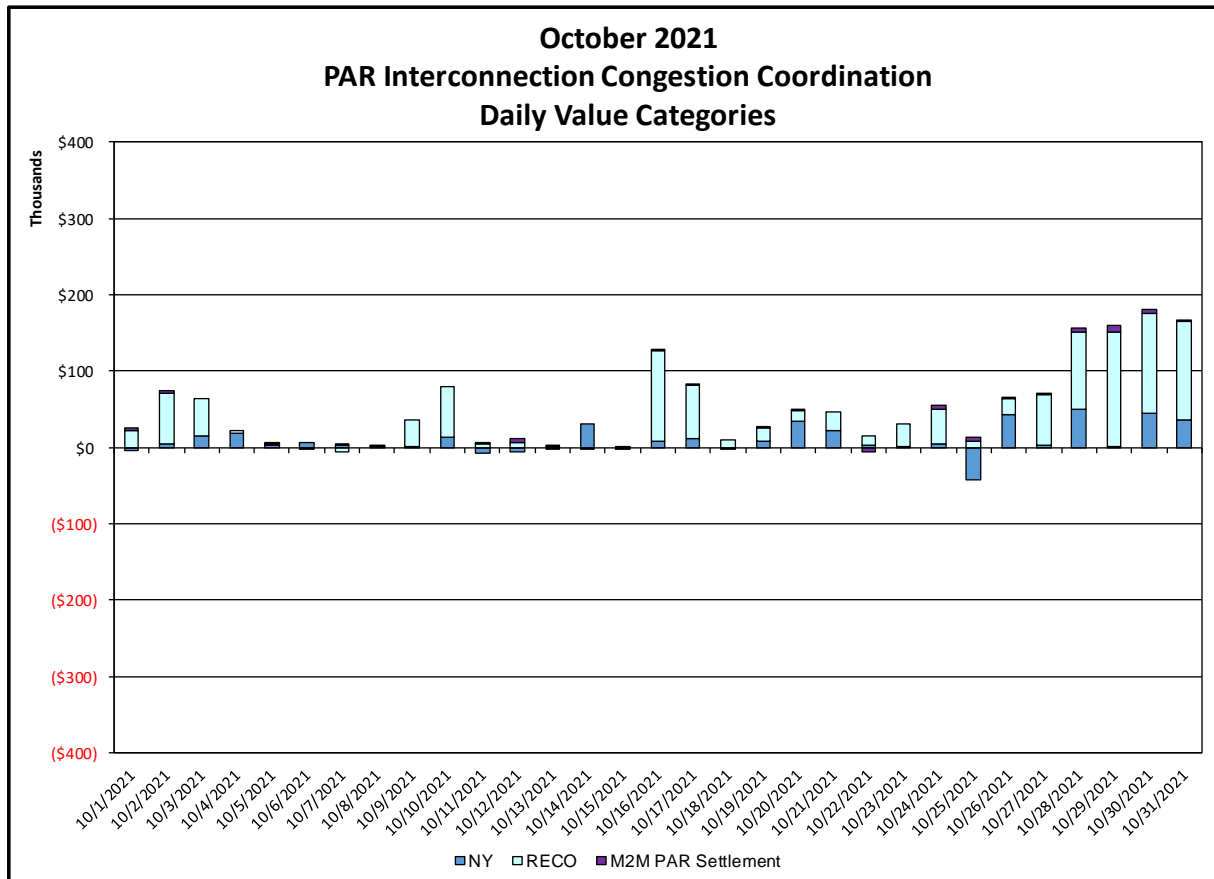
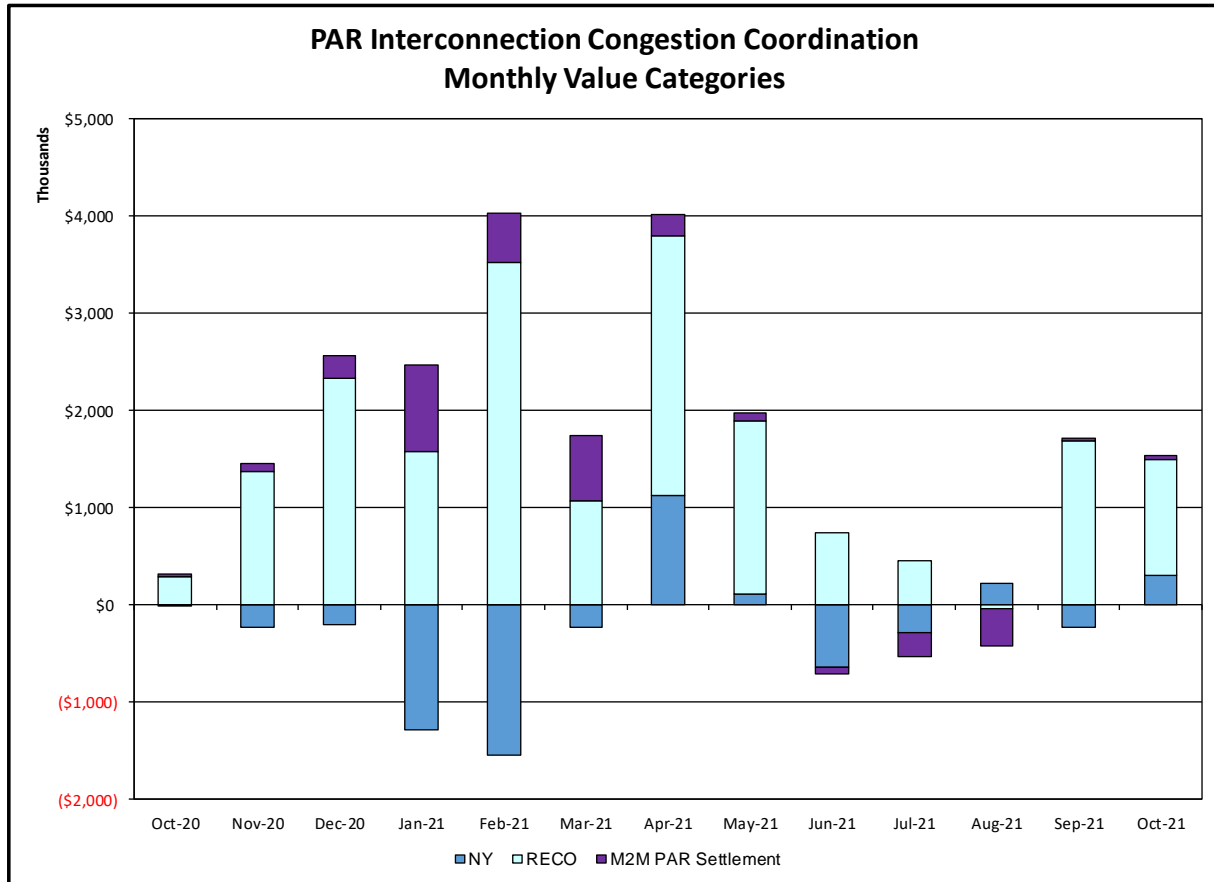









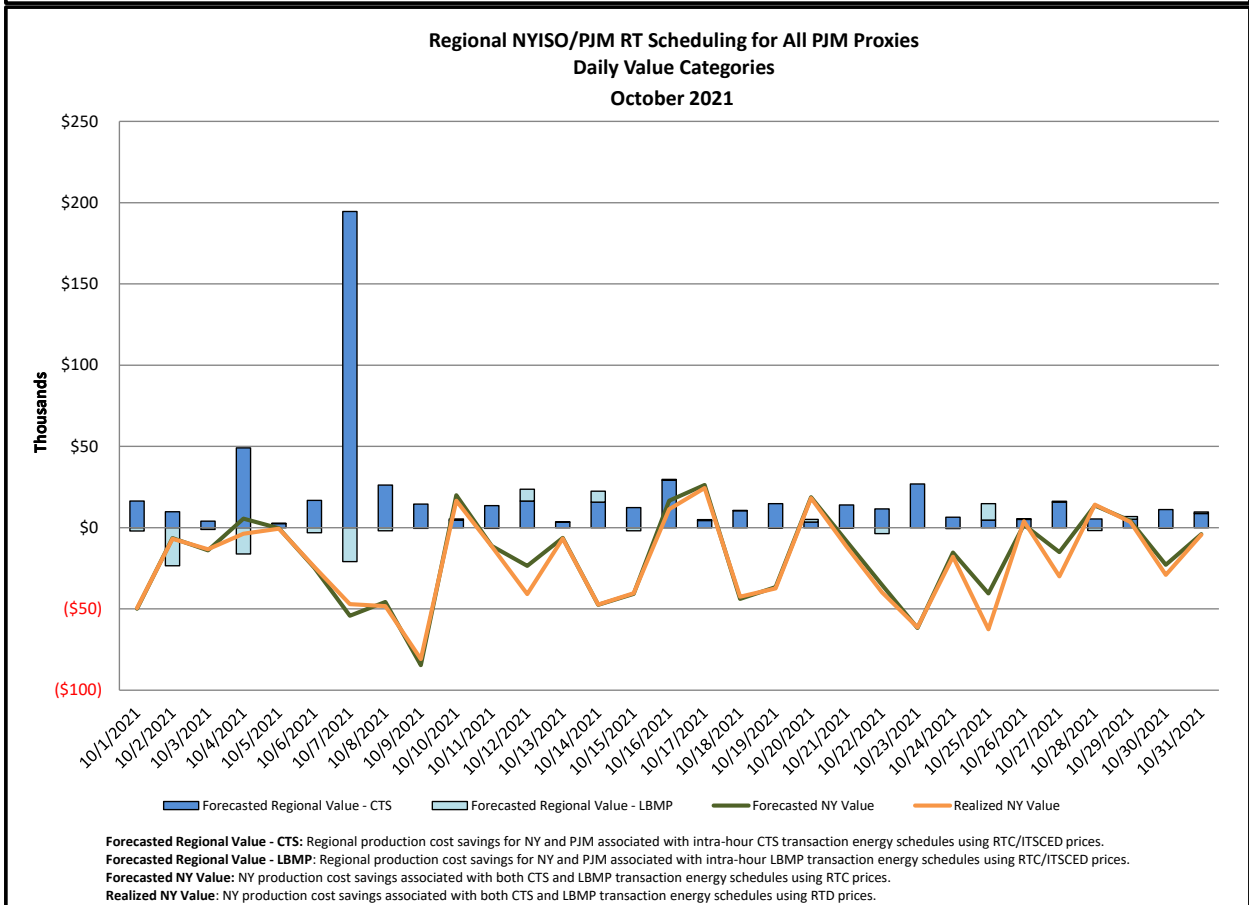
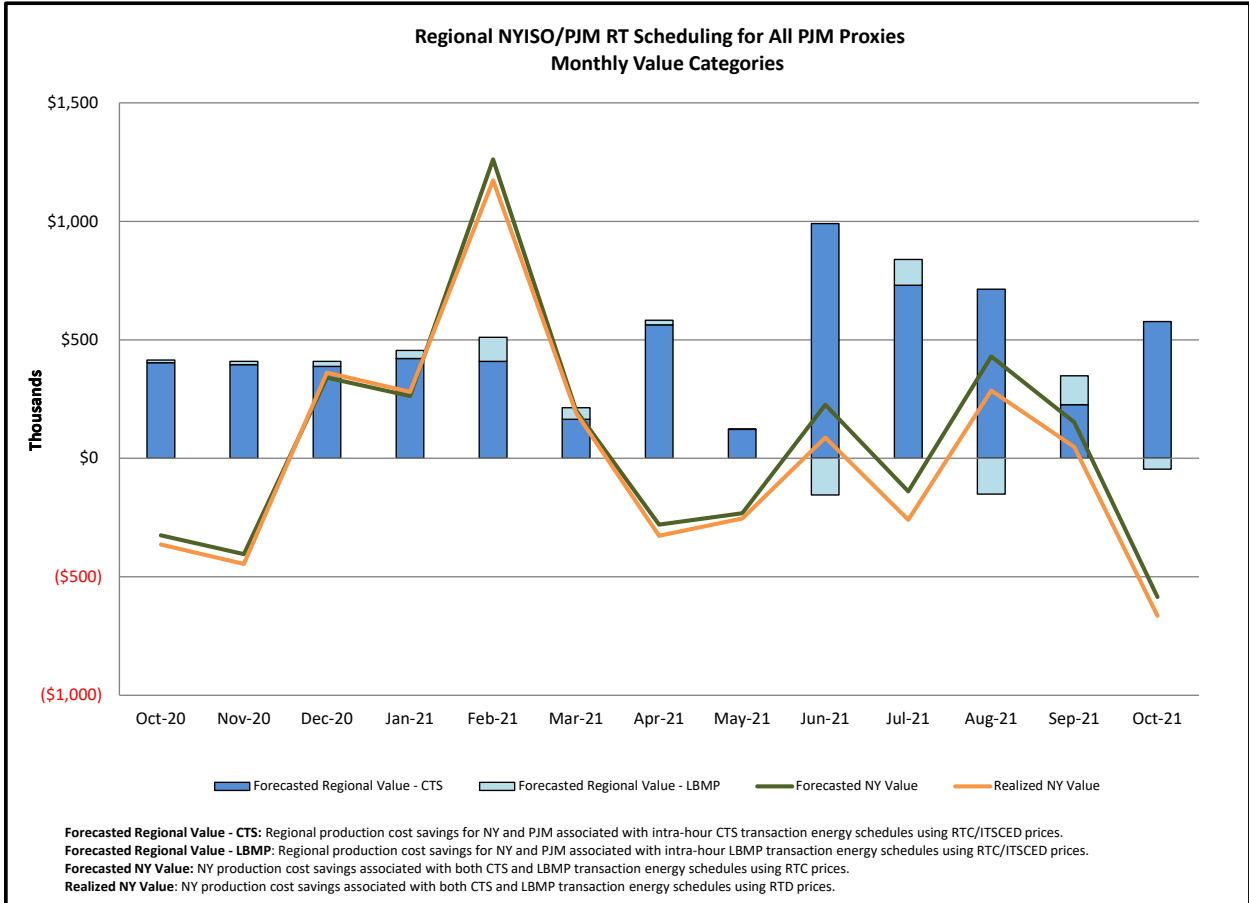


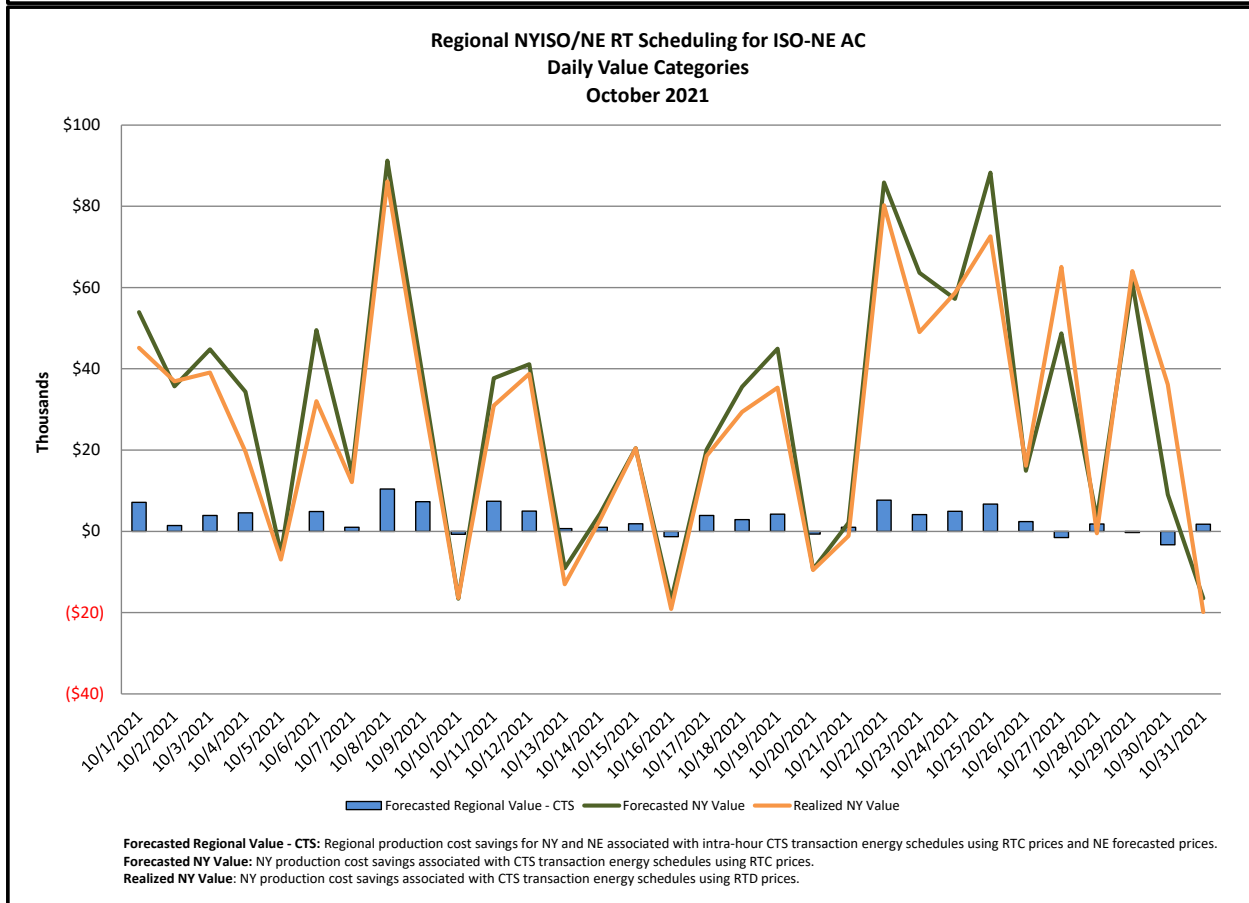
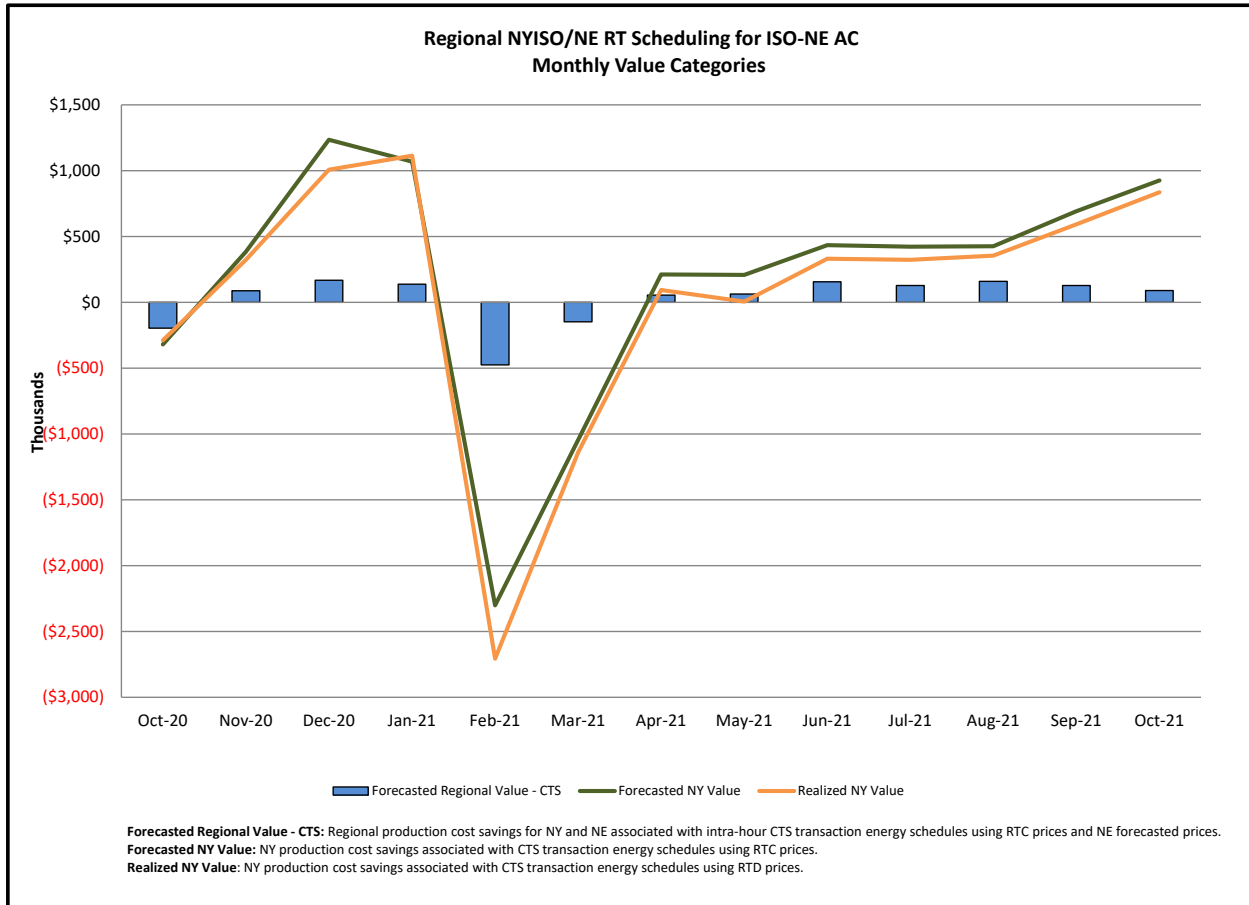
### Broader Regional Market Performance Metrics



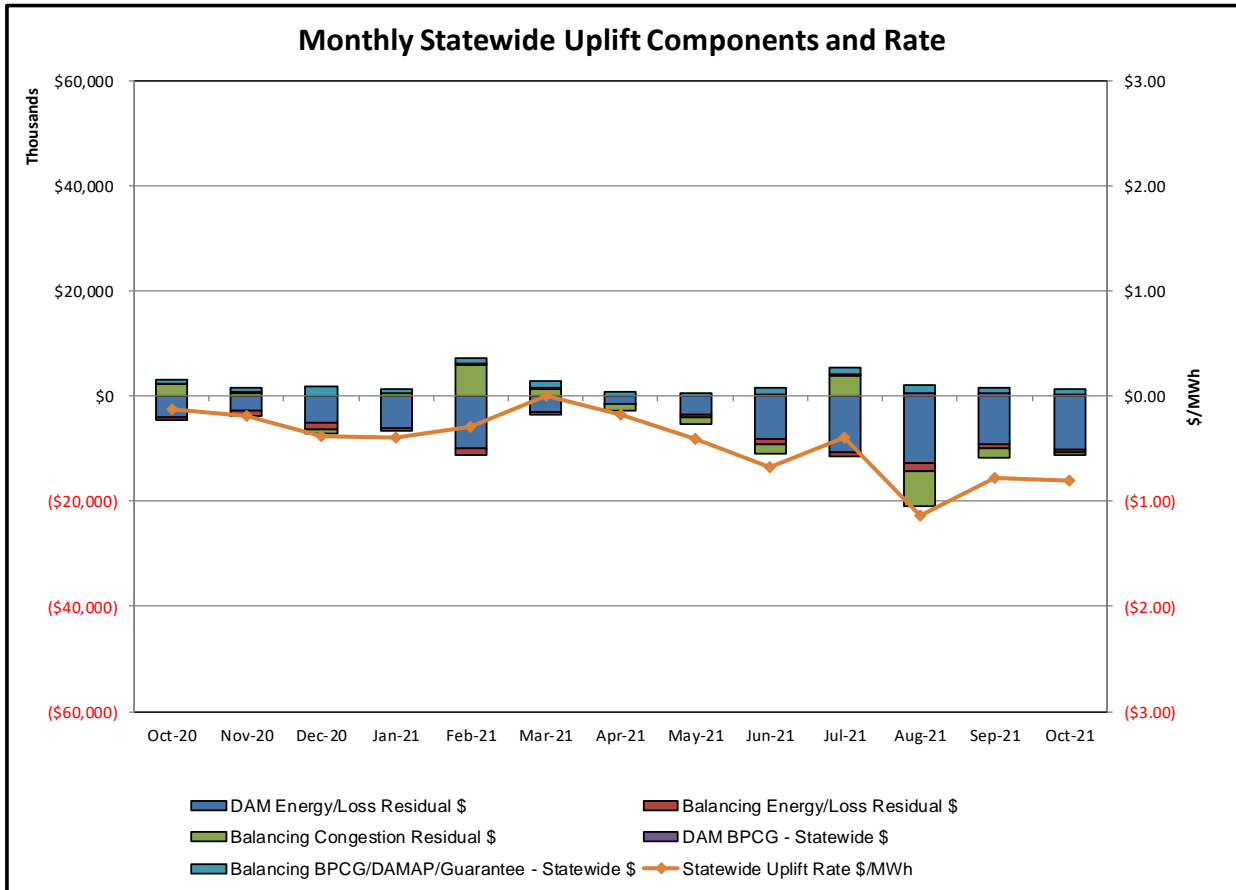
**PAR Interconnection Congestion Coordination**

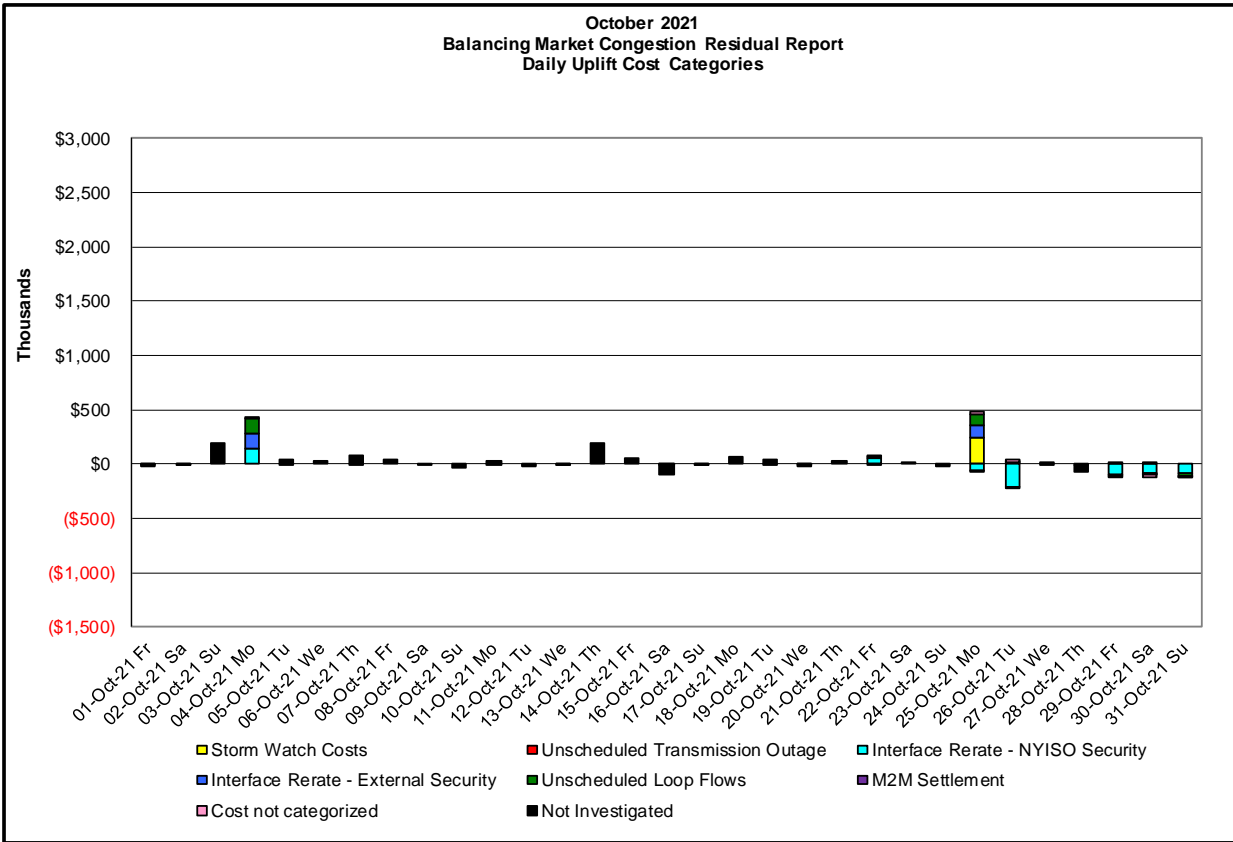
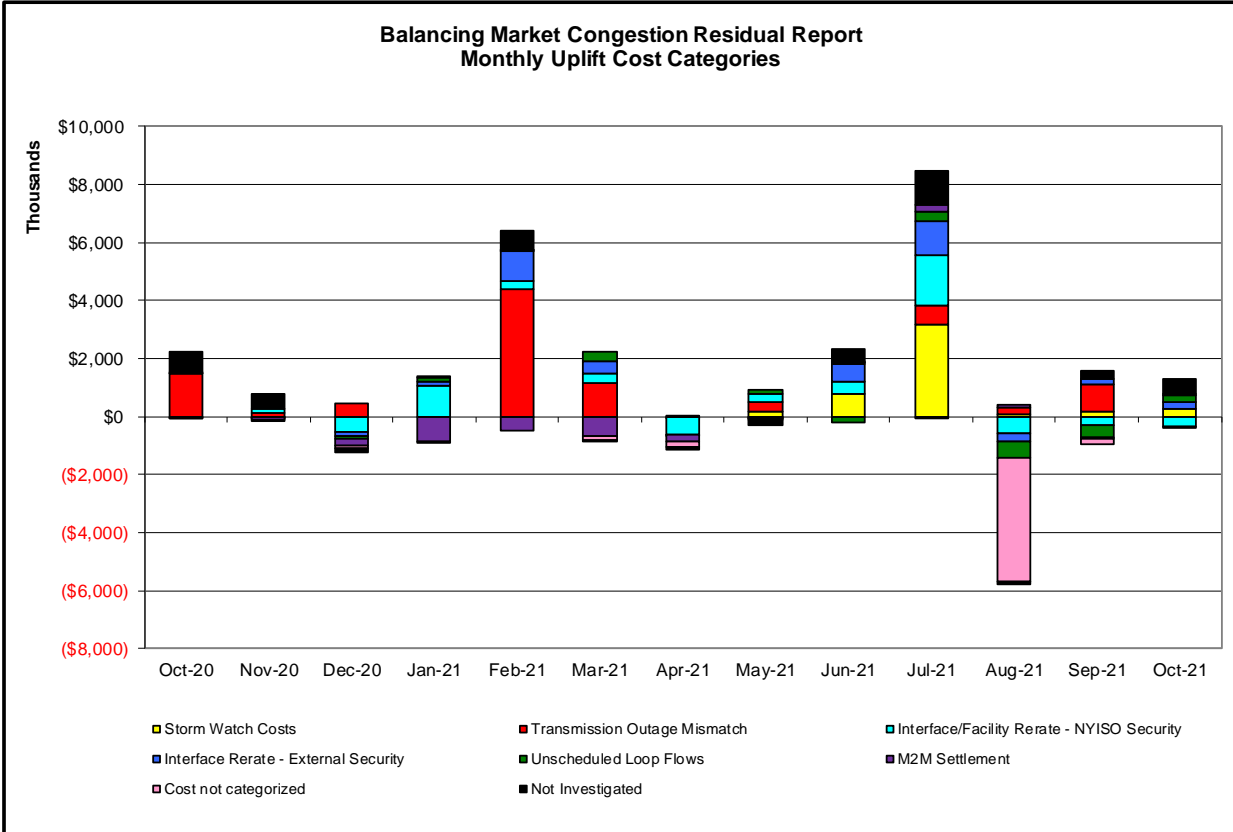
<b><u>Category</u></b>	<b><u>Description</u></b>
 <b>NY</b>	Represents the value NY realizes from Market-to-Market PAR Coordination when experiencing congestion. This is the estimated savings to NY for additional deliveries into NY
 <b>RECO</b>	Represents the value of PJM's obligation to deliver 80% of service to RECO load over Ramapo 5018. This is the estimated reduction in NYCA congestion due to the PJM delivery of RECO over Ramapo 5018.
 <b>M2M PAR Settlement</b>	Market-to-Market PAR Coordination settlement on coordinated flowgates. Through April 2017 this value was included in the NY and RECO categories. The positive sign convention indicates settlement to NY while the negative indicates settlement to PJM.





Market Performance Metrics





Day's investigated in October: 4,22,25,26,29,30,31			
Event	Date (yyymmdd)	Hours	Description
	10/4/2021	11-18	Derate Niagara-Packard 230kV (#61) for I/o TWR:PACKARD 62 & BP76
	10/4/2021	7,8,11-21	Derate Niagara Boulevard-Packard 115kV (#181-922) for I/o TWR:PACKARD 77 & 78
	10/4/2021	11-16	Derate Athens-PleasantValley 345kV (#91) for I/o TWR:PLSNTVLY F36 & F37
	10/4/2021	7,8,11-21	NE_NNC 1385-NY Scheduling Limit
	10/4/2021	7,8,11-20	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; West
	10/22/2021	7,8,10,12-14,16	Derate Adirondack-Moses 230kV (#MA2) for SIN:MSU1&7040& HQ GN&LD PROXY
	10/22/2021	7,8,14	Derate Elwood-Pulaski 69kV (#670) for TWR:HOLTSVLL 881& 882& 880
	10/22/2021	16	Derate Marcy-New Scotland 345kV (#18) for TWR:UCC2-41&EF24-40
	10/22/2021	7	Derate Packard-Sawyer 230kV (#62) for BUS:PACKARD BK3 & 61 & 78
	10/22/2021	7	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; Central East
	10/22/2021	7	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; West
	10/25/2021	21-23	Thunder Storm Alert, Buchanan North 345/138kV (#TA5)
	10/25/2021	21,22	Thunder Storm Alert, Chester-Shoemaker 138kV (#27)
	10/25/2021	18,21,22	NYCA DNI Ramp Limit
	10/25/2021	2	Derate Central East
	10/25/2021	11,20	Uprate Dunwoodie-Shore Rd 345kV (#Y50)
	10/25/2021	7,11,14,15,18	Uprate Gardenville-LangnerRd 115kV (#180) I/o TWR:PACKARD 77 & 78
	10/25/2021	11,13,18	Uprate Porter-Rotterdam 230kV (#31) I/o BUS:N.SCTLD #99&18&1&94&BK1&C2
	10/25/2021	13	Uprate Niagara-Packard 115kV (#193) I/o Niagara-Packard 115kV (#194)
	10/25/2021	13,14	Uprate Niagara-Packard 115kV (#194) I/o Niagara-Packard 115kV (#193)
	10/25/2021	7,13,20	Uprate NiagaraBlvd-Packard 115kV (#181) I/o TWR:PACKARD 77 & 78
	10/25/2021	22,23	NE_NNC 1385-NY Scheduling Limit
	10/25/2021	11,13,14	HQ_CHAT-NY Scheduling Limit
	10/25/2021	11,13,20,21	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; West
	10/26/2021	0	Thunder Storm Alert, Buchanan North 345/138kV (#TA5)
	10/26/2021	19	Derate Marcy-New Scotland 345kV (#18) for TWR:UCC2-41&EF24-40
	10/26/2021	6,23	Uprate Central East
	10/26/2021	8,9,11,14-18,20	Uprate Dunwoodie-Shore Rd 345kV (#Y50)
	10/26/2021	18	Uprate Niagara-Packard 115kV (#193) I/o Niagara-Packard 115kV (#194)
	10/26/2021	16,18,22	Uprate Niagara-Packard 115kV (#194) I/o Niagara-Packard 115kV (#193)
	10/26/2021	8,9,11,13-18,20,22,23	Uprate NiagaraBlvd-Packard 115kV (#181) I/o TWR:PACKARD 77 & 78
	10/26/2021	6,8,9,11,13-18,22,23	Uprate Porter-Rotterdam 230kV (#31) I/o BUS:N.SCTLD #99&18&1&94&BK1&C2
	10/26/2021	19,22	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; Central East
	10/26/2021	19,22	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; West
	10/29/2021	9,10,14-19,21-23	Uprate Central East
	10/29/2021	17	Uprate NiagaraBlvd-Packard 115kV (#181) I/o TWR:PACKARD 77 & 78
	10/29/2021	9,10,14,15	Uprate Cricket Valley-Pleasant Valley 345kV (#F83) for I/o Cricket Valley-Pleasant Valley 345kV (#F84)
	10/29/2021	14	HQ_CHAT-NY Scheduling Limit
	10/30/2021	5,7-9,11,15,17,21-23	Uprate Central East
	10/30/2021	8,9,15,22,23	Uprate Gardenville-LangnerRd 115kV (#180) I/o TWR:PACKARD 77 & 78
	10/30/2021	9	NE_AC DNI Ramp Limit
	10/30/2021	5,16,23	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; Central East
	10/30/2021	16,23	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; West
	10/31/2021	0	NYCA DNI Ramp Limit
	10/31/2021	0,14,15,17-23	Uprate Central East
	10/31/2021	0,19-21	Lake Erie Circulation, DAM-RTM exceeds +/-125MW; Central East

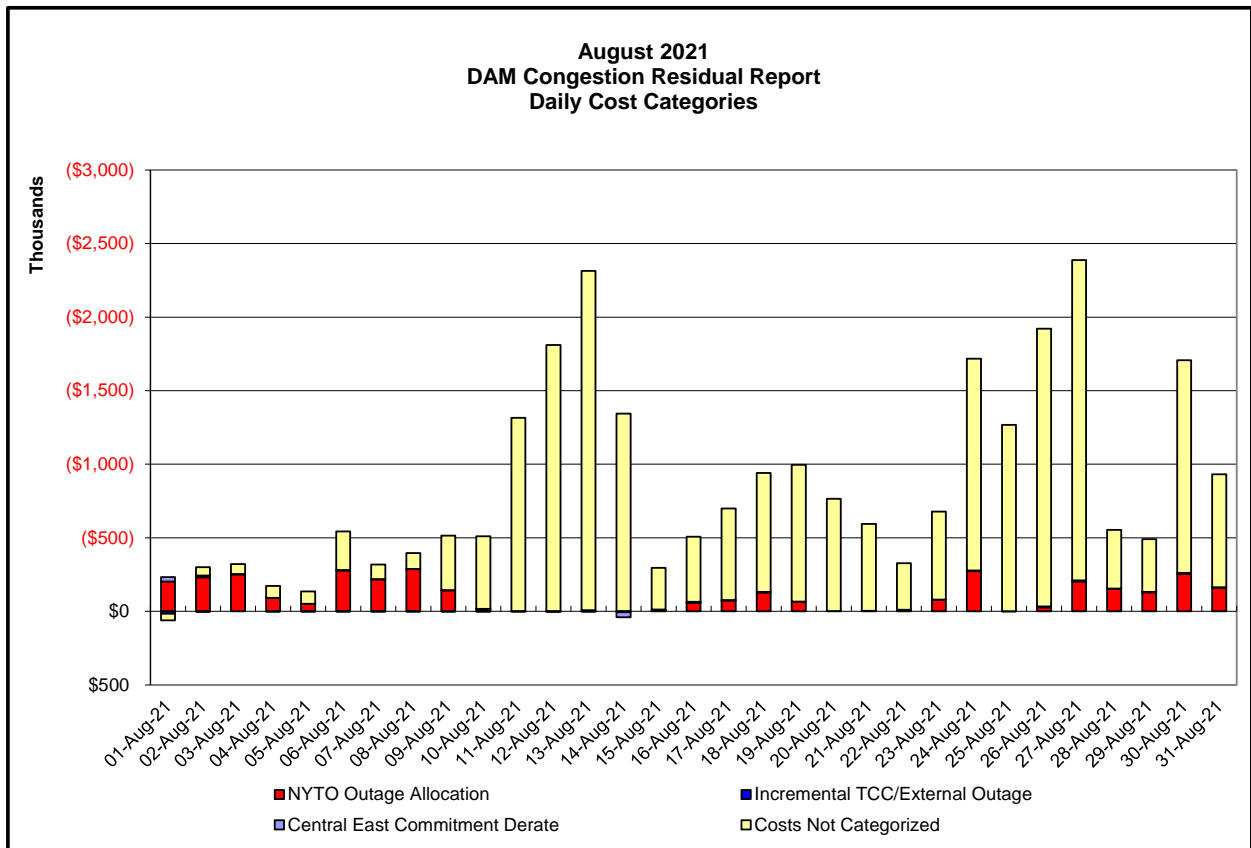
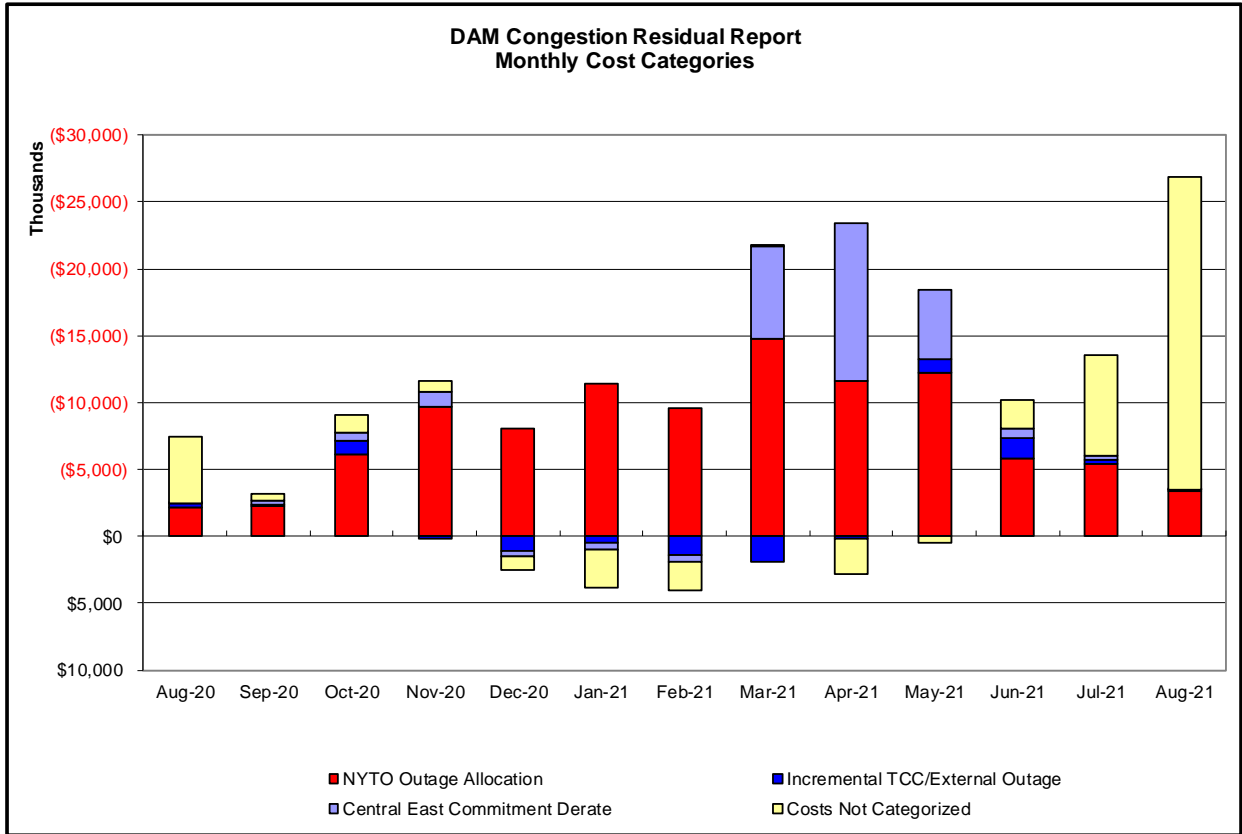
**Real-Time Balancing Market Congestion Residual (Uplift Cost) Categories**

<u>Category</u>	<u>Cost Assignment</u>	<u>Events Types</u>	<u>Event Examples</u>
Storm Watch	Zone J	Thunderstorm Alert (TSA)	TSA Activations
Transmission Outage Mismatch	Market-wide	Changes in DAM to RTM transfers related to transmission outage mismatch	Forced Line Outage, Unit AVR Outages, Early Line Return from Outage
Interface/Facility Rerate - NYISO Security	Market-wide	Changes in DAM to RTM transfers not related to transmission outage	Interface/Facility Rerates due to RTM voltages
Interface Rerate - External Security	Market-wide	Changes in DAM to RTM transfers related to External Control Area Security Events	TLR Events, External Transaction Curtailments
Unscheduled Loop Flows	Market-wide	Changes in DAM to RTM unscheduled loop flows impacting NYISO Interface transmission constraints	DAM to RTM Lake Erie Loop Flows exceeding +/- 125 MW
M2M Settlement	Market-wide	Settlement result inclusive of coordinated redispatch and Ramapo flowgates	

**Monthly Balancing Market Congestion Report Assumptions/Notes**

- 1) Storm Watch Costs are identified as daily total uplift costs
- 2) Days with a value of BMCR less M2M Settlement of \$100K/HR, shortfall of \$200K/Day or more, or surplus of \$100K/Day or more are investigated.
- 3) Uplift costs associated with multiple event types are apportioned equally by hour





**Day-Ahead Market Congestion Residual Categories**

<u>Category</u>	<u>Cost Assignment</u>	<u>Events Types</u>	<u>Event Examples</u>
NYTO Outage Allocation	Responsible TO	Direct allocation to NYTO's responsible for transmission equipment status change.	DAM scheduled outage for equipment modeled in-service for the TCC Auction.
Incremental TCC/External Outage Impacts	All TO by Monthly Allocation Factor	Allocation associated with transmission equipment status change caused by change in status of external equipment or change in status of equipment associated with Incremental TCC.	Tie line required out-of-service by TO of neighboring control area.
Central East Commitment Derate	All TO by Monthly Allocation Factor	Reductions in the DAM Central East_VC limit as compared to the TCC Auction limit, which are not associated with transmission line outages.	

